THE JOURNAL
of the American Medical Association
Published Under the Auspices of the Board of Trustees
VOL. 146, NO. 17 CHICAGO, ILLINOIS AUGUST 25, 1951
COPYRIGHT, 1951, BY AMERICAN MEDICAL ASSOCIATION

THE PSYCHOLOGICAL MANAGEMENT OF CANCER CASES

Nathan S. Kline, M.D., Worcester, Mass.
and
Julius Sobin, M.D., Newark, N. J.

Improved methods of cancer detection and public education on the subject mean that physicians are seeing and treating many more malignant lesions than ever before. More widespread lay knowledge about cancer has almost resulted in a situation in which "every man is his own diagnostician." Formerly, cancer was almost unmentionable between patient and physician, and most persons did not wish to know nor expect to be told of such diagnoses. The pendulum has swung far in the opposite direction, and, along with its benefits, the educational campaign has resulted in an almost national cancerphobia. Our civilization breeds guilt feelings of one form or another in almost all of us; since guilt tends to seek out a "punishment" the cancer-education campaign has provided potential punishment for many persons.

In any case, the attitudes of cancer patients have altered significantly in the past 10 years, and not the least of the problems is the psychological management of these cases. In medical school lectures, it is generally customary in an outline of the treatment for virtually any chronic illness to list psychotherapy as the final item under treatment. Usually the elaboration of this point consists only of a suggestion to "help the patient adjust to his condition." The how's, why's and wherefore's are seldom discussed. Although each physician handles not only his cases in general differently but each patient somewhat differently from any other, it is felt that a general review of the problem may be helpful and suggestive.

TO TELL OR NOT TO TELL?

Unlike tuberculosis, where danger of contagion makes informing the patient of the nature of his illness practically mandatory, in cancer there is a distinct and sometimes painful choice to be made. Certain considerations are involved in making this decision.

1. The physician should be absolutely certain of the diagnosis. Until he is certain, any action that might arouse suspicion by the patient of the nature of his illness should be avoided. It is best even to dissimulate at this stage. There must be some appreciation, however, of the severity of the patient's symptoms. Unless it is impressed on the patient that the condition may be serious, difficulty may arise in having him follow through with the necessary diagnostic procedures. If he questions the necessity for these additional tests, a suggested approach would be "I want to make certain this is only lymphadenopathy" (or hemorrhoids or another condition). If subsequently the diagnostic procedures give normal results, the patient has been spared from severe psychic trauma, and, if the evidence shows abnormal conditions, few patients will not understand that the physician was attempting to spare them anxiety until he himself was certain.

Mention of disease should always be coupled with stress on the need for treatment: "The symptoms will become annoying or dangerous unless you follow through with treatment." When some patients learn that their illness is likely to be fatal they feel that treatment is useless. It must be emphatically pointed out to these patients that no illness is absolutely fatal, and that, with proper treatment, there is at least some chance that they will recover. That they owe the obligation to undergo treatment not only to themselves but to their families is worth stressing, if this reaction occurs.

2. Unless there are strong indications to the contrary, it is advisable to wait until the patient asks. With the widespread knowledge of cancer symptoms, it is inevitable that those patients who want to know will eventually present the physician with this opportunity.

3. The major consideration of the physician in deciding whether to conceal from the patient the nature of his illness should be the way he manages other life situations. It will probably be better for those persons who have a realistic approach to life in general to know the truth. To judge the realism of their general attitude does not require profound psychiatric training. The patient who in the past has inquired how much an operation will cost, how long he will be incapacitated, and the other "hard facts" is usually the realist.

4. If the patient does ask, the way he phrases his question may give a strong indication as to the type of answer he desires. The "I don't have cancer, do I?" phraseology is really only a request for negative reassurance and in all likelihood should be met with the tactics of evasion. Physicians have all had experience with the mother who asks about the possibility or the unlikeli-

From Worcester State Hospital (Dr. Kline, Director of Research), and the Veterans Administration Regional Office, Newark (Dr. Sobin).

hood of her child's becoming infected with some current contagious disease and when a realistic answer is given is horrified by even a small positive possibility.

If the Patient Is Told.—Regardless of how stable a person may seem, the psychological shock is certain to be severe. This can be "buffered" to some extent if the truth is told in easy stages. It is often desirable, for instance, when the patient inquires about the possibility, to discuss it purely hypothetically, even though the physician already knows that there no longer remains any doubt. Stress should be laid on the fact that therapy is available for even the most malignant of neoplasms. In some patients, statistics as to life expectancy and such facts as those presented by Finesinger,[1] showing that life expectancy for the general population would be increased less than two years if cancer were completely eliminated, may prove of value but is not a great consolation to most patients. The physician should be as honest as possible with the patient about his condition and try to get him to accept the illness as a fact rather than either a major disaster or an unimportant incident.

When the physician does reach the stage at which he is ready to tell the patient definitely of the nature of his illness, he should have available and visible concrete evidence, such as the pathological report, if possible, and x-ray report. It is probably advisable to interpret the results to him rather than to merely present him the pathological report. For a patient to read that there is a widespread malignant carcinoma is an unnecessary cruelty, since the same idea can be given with less of a shock by the interpretation of the physician. It is important to forestall the possibility of raising false hopes or of driving the patient to charlatans and quacks, who might question the diagnosis, if it has not been conclusively enough presented.

No matter how great the confidence that a patient has in his physician, he will probably take into consideration the possibility of his being in error. If at all feasible, at least the possibility of consultation with a colleague or a reputable specialist should be offered to the patient.

The patient should be advised that it would be desirable to get his affairs in order; but a definite date as to the likelihood of his death is extremely undesirable. Many a physician has hurt his reputation by saying that a patient has at most six months to live when, a year later, this same patient was contradicting this estimate. The advice should be given not as a death warrant but as a possibility for which it will do no harm to prepare. The question of the patient's plans for the disposition of his property and of his life insurance should also be raised although efforts should be made to avoid making this a focus of his attention.

Immediate reassurance should be given to the patient as to the nature of the therapeutic program, so that he will feel that everything is not hopeless and that everything possible is being done for him. Most patients associate cancer with excruciating and chronic pain, and it is certainly desirable to reassure the patient insofar as possible as to the extent of discomfort involved and the amount of relief that may be expected from analgesics if they are found necessary. When analgesics are used, there should be no hesitancy in their liberal application. The aim should be to prevent discomfort rather than to alleviate it. A combination of *d*-amphetamine sulfate (dexedrine®) and *dl*-amphetamine sulfate (benzedrine®) will often alleviate anxiety and depression.

For reasons beyond the scope of this article, it has been found that many patients with cancer develop a strong sense of guilt (cf. Nolan D. C. Lewis' aphorism, "Cancer is paranoia at the cellular level"), and, as much as possible, this should be alleviated. Many of these patients feel that the financial strain placed on their family is one of the most unbearable elements of the illness. A discussion concerning the extent of financial involvement and the means by which it can be minimized should be introduced, whether or not the patient raises the question. The physician should stress that he will keep his own part of the expense as low as possible.

Whether the family should be informed of the patient's illness and if so, how, should also be reviewed in detail with the patient. The major responsibility rests with the physician, however. It is unlikely that the patient has ever had cancer before, whereas the physician has had much contact with problems of this kind. It is the physician's responsibility to advise and counsel the patient and actively suggest the course he should follow. At a time of stress, it is a consolation to the patient to have present someone, such as a physician, who appears adequate to advise competently what should be done.

Unless there are strong indications to the contrary, the patient should be urged to retain his usual job as long as possible. A complete shift of activity before it is absolutely necessary appears to be extremely demoralizing. Even when the patient becomes partially incapacitated, he should be urged to carry on parts of his job that do not too severely tax him, even if only on a part-time basis. Auxiliary activities should be introduced at first as purely diversional, so they are not made to appear as childish and inconsequential substitutes for usual activities. If the patient will not be able to carry on his usual activities, he should be helped to plan as far as possible for substitute ones. If these can be developed and a real interest aroused in the patient before he is completely incapacitated for his regular work, a major therapeutic step will have been achieved. The nature of the substitute activities is naturally largely dependent on the character of the patient himself. Such activities as painting, radio contests, crossword puzzles, and stamp collecting are within the physical capabilities of all but the most incapacitated. The physician should be a pillar of stability, able to advise the patient at each step of the way.

If the Patient Is Not Told.—If it is found desirable to conceal from the patient the nature of his illness, it is usually wise to substitute some other condition. As the symptoms progress, the patient will inevitably know that something is wrong with him, and, if he is able to attribute it to some relatively benign condition, he will at least have the consolation of "understanding" the cause of his complaints. It is well to forewarn him that such discomforts are likely to occur. The nature of the condition substituted is dependent, of course, on the location and extent of the neoplasm and should not actually exclude the diagnosis of neoplasm. "A type of

1. Finesinger, J., in Blain, D.: Elements in Motivation for Cancer Examination and Treatment, read at the annual session of the American Radium Society, Atlantic City, N. J., June 30, 1949, unpublished.

stomach ulcer," "a kidney blockage," "a liver dysfunction," is the type of equivocal diagnosis suggested. Here again emphasis should be laid on the fact that the condition may become serious unless properly treated. Unless the patient is sufficiently impressed with the fact that he must have treatment to avoid serious discomfort, he may tend to disregard treatment to a large extent, even when it might prove of distinct benefit to him.

At times the cancer is not discovered until laparotomy is performed. In these cases, a diagnosis of "a certain type of ulcer" or "one type of bowel block" can be offered, and removal of the offending organ deferred on the basis of there being "a slight infection," which must be treated first. This will even provide a reason for rehospitalization of the patient if he becomes so debilitated that it is necessary. The physician should exercise great care not to reveal the truth inadvertently, and it may even be desirable to carry a euphemism on the patient's chart or office record. Office personnel should also be trained to be noncommittal and discreet (outside as well as inside of the office) and, in general, to be optimistic and helpful.

Occasionally, a patient who you feel would be better off not knowing will ask directly whether he or she has cancer. Except in rare instances, it is hazardous to answer with an outright denial. Eventually, the majority of patients who really want to know will discover the truth, and if you have deliberately lied to them, they will lose confidence in the real reassurances and consolations that you could offer. It is better to avoid answering at all than to present the patient with a direct falsification. The major problem in the handling of those patients who are not told their diagnosis is the management of the family, which is discussed later.

Management of Family If They Are Told.—If the patient has been informed of the nature of his illness, he himself should be the major judge as to who should and who should not be told. The way in which the family is presented with the facts should also be decided on by the patient himself. It is again the responsibility of the physician to suggest to the patient ways and means of presenting the facts. The patient should be strongly urged to bring into confidence at least one responsible member of the family, although this need not be the nearest relative. It will probably be necessary to impress the family at least to some extent with the seriousness of the patient's condition, so that they will be cooperative. Although the seriousness of the illness should not be minimized and the unsuitability of such an occurrence not overlooked, still the advantages of knowing the truth can be contrasted with the consternation of unexpected death.

Most of the "don'ts" connected with the behavior of the family are rather obvious. Frequent and tearful commiserations are certainly undesirable, but false cheerfulness is probably even more disturbing. When all concerned realize the seriousness of the situation, obviously unmeant gaiety strikes an extremely jarring note. The most desirable attitude on the part of both the family and the patient is acceptance of the fact as such, with an effort to expend the remaining time as constructively as possible. Finances should be discussed with the family, and, even though prognosis is poor, the moral obligation of the family to follow through with whatever treatment is available should be emphasized.

The family should also be cautioned to avoid discussions with the patient involving plans contemplated at a time when the patient will no longer be present to participate even vicariously. This does not mean that concurrent activities should not be entered into. The patient already feels left out of things, and, unless he protests, he should be allowed to participate, at least at second hand, in what is going on.

Also to be strictly avoided are regrets, recriminations, and "might-have-been's." If the patient falls into this type of mood, an effort should be made to turn the discussion toward more neutral subjects rather than end it abruptly with "let's not talk about that." The family should encourage the patient to continue at his regular job as long as possible but should begin to interest him in substitute activities. He should be encouraged in his hobbies and in occupational therapy. Again, too much enthusiasm may be detrimental. Praise is in order for those things that the patient does accomplish, but it should not be too much beyond the real merits of the work. If the patient is partially incapacitated, he should be made to feel as useful as possible. He should be encouraged to do as many useful things as he can, e. g., he might make minor repairs or telephone food orders.

As much time as possible should be spent with the patient. This does not mean that a constant conversation need be maintained. Simply sitting in the room reading or listening to the radio provides the human contacts that most persons need during a crisis of this kind. Whether the patient should have many or few visitors should depend in large part on his former mode of existence. This should be kept as nearly normal as possible. As a rule, close friends should be encouraged to visit, but emotional, unstable persons, whether relatives or friends, should be excluded as far as possible.

In some cases, when the family has knowledge and the patient has not, the patient himself exerts much pressure to find out "what the doctor said." At times, strong guilt feelings may be created in the family if they have to tell deliberate lies, and sometimes the situation can be helped if the statement to the family is worded in an equivocal manner; however, it should still be clear. "I will not say what disease the patient does have, so you can honestly tell him that I have not said he has cancer, if he asks." "I have told the patient that he has such and such a condition, since his symptoms in part resemble this disease. I am not telling you that he has cancer, so you can be perfectly honest in denying that I said he has cancer, if he does insist on knowing what I say." It is surprising how helpful such a wording of the diagnosis can be to relatives.

Since cancerphobia is already widespread, the occurrence of cancer in a member of the immediate family may activate a large amount of anxiety, and it is wise to offer the possibility of a complete physical examination to other members of the family, to allay their fears.

If the Family Is Not to Be Told.—Unless it is specifically requested, it is probably preferable not to volunteer any information as to the patient's condition. In some cases the family has no desire to know the progress and it is not unlikely that they may never specifically inquire. In reply to insistent questions concerning the nature of the patient's illness, when they can no longer be deferred, the matter should be discussed with the patient, if he himself

knows, and consideration given to whether it is wise to inform the family. Here again, the physician should act as adviser to the patient. It may be easier for him to tell the family than for the patient to do so, which may also allow the patient and his family to avoid discussing the illness, which may lessen the tension. In telling the family, as in dealing with this matter with the patient, the physician might use some euphemistic substitute.

When the physician is questioned as to the patient's progress, he may give such answers as "He is getting along as expected" or "He is doing well, all things considered," which are usually satisfying and do not put the physician in the position of stating outright untruths.

If no one in the family is found to be responsible enough, either emotionally or otherwise, to be told the plain facts of the case, a medicolegal problem exists. It is wise in these circumstances for the physician to protect himself by having a colleague called in as consultant who can concur in the decision of the physician and the patient to withhold knowledge from the family. If a question later arises, there will be adequate evidence that this was the patient's decision.

GENERAL CONSIDERATIONS

If the patient is considered inoperable, the relative value of hospitalization in relation to benefits to be obtained should be discussed with the patient, if he is told, or the responsible member of the family if the patient is not told. The physician should suggest what seems to him the most feasible plan. In many of these cases, home care is psychologically more beneficial and provides the patient with more pleasant and active surroundings than would be the case if he were hospitalized. In other cases, it may help both the family and the patient if he does not have to remain at home and be constantly reminded of his "tragedy." The strain on the family, both physically and emotionally, should be carefully weighed. The reassurance that something is being done when the patient is hospitalized must be weighed against the fright that may be aroused by prolonged hospitalization.

TYPES OF REACTION TO KNOWLEDGE OF CANCER

It is most desirable, of course, that the patient accept the fact of his disease and that he plan the remainder of his life accordingly; however, at times, when the diagnosis is beyond question and can be substantiated by laboratory and x-ray reports, the patient refuses to believe the inevitable facts. He may then resort to visiting a great number of other physicians. This provides a hope of escape and, as previously mentioned, the physician should anticipate this by suggesting other consultants if the patient has any desire for independent opinion. It is probably even advisable for the patient to be seen by a consultant before the physician gives his own final decision. At times, even two or three other opinions do not satisfy the patient, and he persists in a futile search for someone who will deny the existence of his condition. Anxiety and severe depression usually arise when someone is in an unpleasant position and there are no active steps he can take to relieve the tension. Visiting large numbers of physicians may at least provide activity that, although fruitless, may alleviate the pressure.

The greatest danger in cases of patients who refuse to accept the diagnosis, when it has been felt desirable to tell them, is that, instead of seeking reputable medical assistance, they become victims of various charlatans. If the patient cannot be convinced of the validity of the diagnosis, it is important to maintain a good enough relationship with him to prevent his falling into the hands of unscrupulous persons who would exploit him. The physician should not react to a refusal to accept an obvious diagnosis by feeling that a direct assault has been made on his medical integrity. Some persons find visiting physicians a useful escape device; although the physician should not encourage it, it may be considered psychotherapeutic. However, the patient should be prevented from falling into the hands of quacks.

Occasionally, even though the patient has been unequivocally told what his diagnosis is or has been presented the facts in such a way that the conclusion is obvious, he fails to grasp the truth. Some physicians may feel guilty that they have not made the matter sufficiently clear. This kind of rejection of the diagnosis by the patient is essential for his psychological health. If the patient does not want to know the diagnosis, the matter should not be forced.

Flight from the Disease.—At times patients will become actively psychotic and lose touch completely with reality. The management of patients of this type is naturally for the psychiatrist. A prompt referral without unnecessary temporizing should be made. Other patients will develop compensatory outlets, the most frequent of which is turning to "religion." As long as the patient can develop and exercise his new-found "truth" without interfering with his medical treatment or injuring himself and his family in other ways, he should be encouraged in this activity. It would be surprising if the prospect of decreased life expectancy did not result in some such reorientation. The intensity of previous religious beliefs may be increased, or there may be a devoted adherence or belief in the importance of almost any "cause" or theory. At times the new belief is radically different from the patient's former views. If the new "religion" is likely to cause a severe financial or emotional drain on the family, the problem is complicated. While the main theme of the belief should not be destroyed, it is often possible to turn the patient's expression of it into less devasting channels. Instead of allowing him to give a major part of his estate, which may be needed by his wife and child, to "The Society for Motherless Cats," the physician should try to get him to substitute such activities as bringing the matter to the attention of the public in the newspapers or writing to persons with similar beliefs.

Another form of flight from the disease is suicide. In most cases, this is more verbal than actual. There does exist a real possibility, however, in almost every case, and it is the physician's responsibility to guard against this, insofar as possible. The stigmas of incipient self-destruction cannot be detailed in full within the scope of this paper, but it is important to note a sudden, complete acceptance of the situation following prior difficulty in adjustment, history of depression earlier in the patient's life, and insomnia, depressed posture, and anorexia, occurring without adequate organic basis. It is advisable to see the patient daily until it is certain that his emotional state is such that there is no great suicidal risk.

Occasionally, a patient will respond with euphoria to the knowledge of a fatal disease. As a rule, this condition wears off and should always be regarded as a compensatory type of reaction covering a severe depression. The euphoric patient is often a greater suicidal risk than one who is openly depressed. This type of reaction is basically emotional in origin, and it is not advisable to argue with the patient to convince him of the seriousness of his condition. In some cases, a mild *belle indifference* continues and may well constitute a satisfactory reaction to the situation. By accepting the real fact intellectually but not emotionally, the patient may be able to protect himself against catastrophic inner turmoil.

Overreaction to the Disease.—At times knowledge of a chronic fatal illness may result in complete physical collapse, and hospitalization becomes necessary, not so much for the treatment of the chronic illness as for building the patient up to some sort of functional level. Patients of this type should be treated with much affection and consideration by both physician and family. If they return to a pseudoinfantile state, they should be handled in many respects as children.

Severe and prolonged depression with or without suicidal tendencies may result when the facts of the condition are made known. A certain amount of depression can well be considered normal, but if this persists, it should be treated. Electric shock therapy, regardless of its ultimate merits in the treatment of the more serious mental illnesses, is almost specific for reactive depressions of this particular type. There are few medical conditions, except metastases to lung or bone (where there is resultant danger of hemorrhage or fracture), that preclude the use of this type of treatment, which, if necessary, can even be given in the home. Usually, six treatments will relieve the extreme elements in the depression.

Obsessive Preoccupation with the Disease.—That a patient with this condition will dwell on it to some extent is to be expected. As previously outlined, efforts should be made to divert him from this type of preoccupation. In cases in which this is unsuccessful and the patient's preoccupation becomes so severe that he makes life intolerable for both himself and his family, serious consideration should be given to one of the psychosurgical procedures. In addition to relieving intractable pain, prefrontal lobotomy usually results in the loss of this preoccupation with self and future, which leads some chronically ill patients to suffer out of all proportion to their illness.

Other techniques, such as hypnosis and intensive psychotherapy, are valuable in some cases.

Box 57, Worcester (1).

MANAGEMENT OF RESIDUALS OF INJURIES TO SPINAL CORD AND CAUDA EQUINA

Lewis J. Pollock, M.D., Benjamin Boshes, M.D., Isidore Finkelman, M.D., Herman Chor, M.D., Alex J. Arieff, M.D., Meyer Brown, M.D., Knowlton E. Barber, M.D., Joseph G. Kostrubala, M.D., Louis B. Newman, M.D., and Benjamin H. Kesert, M.D., Chicago

About 300 veterans suffering from injuries to the spinal cord and cauda equina are in constant residence in the medical wards of the United States Veterans Administration Hospital at Hines, Ill., under the care of the Medical Neurological Service. In addition, the Neurosurgical Service is responsible for patients with current acute injuries and those with old injuries who need surgical treatment, such as rhizotomy, exploration, or chordotomy. Patients requiring these procedures are transferred to the latter service, which has available an additional 75 beds.

ORGANIZATION

Staffs are appointed and treatment is operated under the Deans' Committee plan. In this plan, the attending and consulting staffs are appointed from the faculties of the medical schools in the Chicago area. It so happens that the staffs in neurosurgery and medical neurology are members of the faculty of Northwestern University Medical School. Under this plan, in addition to the regular staff of the United States Veterans Administration, residents in training also act in a capacity analogous to that of ward surgeons.

In planning the organization of the treatment of patients with wounds of the spinal cord or cauda equina, it was decided that injuries, as well as diseases, of the nervous system were properly the responsibility of medical neurologists.

Consultants in neurosurgery, general surgery, orthopedic surgery, plastic surgery, genitourinary surgery, medicine, and physical medicine are appointed to this service. Each is responsible for his particular specialty. Not only do these specialists serve when called into consultation in a particular case, but it is their responsibility to study the relation of their specialty to the problem of the treatment of these patients and to devise the best means of prevention of the complications within their specialty and their most efficient treatment, and then, on consultation with the Department of Medical Neurology, to put these methods into effect.

Read before the Section on Nervous and Mental Diseases at the Ninety-Ninth Annual Session of the American Medical Association, San Francisco, June 30, 1950.

Assisted by a grant from the National Research Council, Division of Medical Sciences, Committee on Veterans Medical Problems, acting for the Veterans Administration.

From the Department of Nervous and Mental Diseases, Northwestern University Medical School, and the Department of Medical Neurology, Veterans Administration Hospital, Hines, Ill.

Sponsored by the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the authors do not necessarily reflect the opinion or policy of the Veterans Administration.

This plan has operated admirably since 1946. Many studies have been made upon special aspects of the problem. Among them have been studies on spasms, spasticity, and reflex activities; pain; dysregulation of temperature; reflex hypertension; orthostatic hypotension; sweating; dysregulation of water metabolism; bladder and rectal function; nutrition and bodily function; orthopedic, surgical, neurosurgical, and genitourinary surgical problems; problems of physical medicine, and the follow-up observation of discharged patients by social service. In addition, analyses are made of the pathologic changes found in case of death of any of the patients.

From these studies and the observations and experience of all the consultants and physicians, certain conclusions have been reached about broad principles of management. It is not intended in this article to describe medical or surgical procedures, to compare one method with another, or to hold a brief for any favored devices. Such descriptions have been made before upon numerous occasions.

It is our intention, rather, to relate the conclusions reached by us in respect to basic principles, as may have been indicated by our experience. Our conclusions are derived from our experience gained from the treatment of the whole material, 767 patients, as well as from more intensive studies on smaller groups or patients selected for investigation of some particular subject, such as pain or spasms.

In a comparison of the evolution of signs and symptoms and of complications of injuries of the spinal cord and cauda equina sustained in civilian practice before the war with corresponding data on patients injured during the war and later treated under the oft unavoidable adverse conditions of military practice, many differences could be found in relation to mortality, morbidity, and complications.

Munro [1] took advantage of his many years of study and attention to injuries of the spinal cord when he compared his extensive experience in civilian experience with his later observations on the residuals of injuries to the spinal cord and cauda equina resulting from war wounds after treatment in military practice and final residence in the United States Veterans Administration hospitals.

To those of us who had not had extensive experience with injuries of the spinal cord and cauda equina in civilian practice, such a point of comparison was unavailable. However, since the end of the war many veterans have sustained injuries to the spinal cord and cauda equina and either have been treated immediately in civilian hospitals and transferred soon thereafter to the United States Veterans Administration hospitals or have been taken immediately after injury to such a hospital. By a comparison of the evolution of signs and symptoms in this group with that of similar signs in men injured overseas during the war and first treated in military hospitals, a similar study was made possible. The results of this study led to parts or the whole of some of our conclusions. In addition, certain special studies led to conclusions as to the site of origin of distal burning pain; the evolution of pain; the evolution of spasms, spasticity, and reflex activity; the evolution of decubitus ulcers, of genitourinary and bowel function, and of recovery after injury; changes in the physical bodily state; evolution of genitourinary complications and the result of their treatment by a program of physical medicine; follow-up observations after discharge of the patient, and pathologic changes found after death.

1. Munro, D.: Rehabilitation of Veterans Paralyzed as the Result of Injury to the Spinal Cord and Cauda Equina, Am. J. Surg. 75:3, 1948.

PAIN

From our discussion of pain we shall exclude that type which is referred distally from lesions of roots at the level of injury, since the treatment of these lesions, as in the case of tabes and other diseases producing root pain, is well known. We shall discuss only that pain which occurs below the level of the lesion, which is diffuse, often imperfectly localized, and is described by such words as burning, tingling, stinging, aching, pins and needles sensation, or sharp and shooting. In other words, it partakes of the character of a paresthesia much more than that of a simple pain. In 80% of the patients with this type of pain the word "burning" is considered most fitting to describe it. The localization of this pain is often inconstant in a given patient, and the pain usually is felt diffusely in such areas as the soles, both lower extremities, the abdominal wall, or the lower half of the abdominal wall only. Relatively soon after the injury the pain is sufficiently intense that the patient spontaneously complains bitterly and asks for relief. To relieve this, drugs, including narcotics, have been used freely, often ineffectually, and frequently to the point of producing addiction. Because of this, surgical procedures have been performed with the purpose of interrupting neural pathways that transmit painful stimuli to the brain. The two most commonly performed procedures have been section of the posterior roots and of the spinothalamic tract within the spinal cord, and chordotomy. First, we wish to report upon our conception of the site of origin of this pain, to the end that certain surgical procedures will be made immediately to appear potentially ineffectual in any way.

To explain such pain, many theories have been advanced. Practically all call upon the intermediation of the sympathetic nervous system.

It has been observed by us in a number of cases that when, in the presence of an injury of the spinal cord, a limb may have been amputated at the thigh, the patient not only seems to feel the existence of the amputated lower extremity and describes its position, but also suffers from the same burning pain that he experienced before, and that is present in the remaining limb. This indicates immediately that there can be no centripetal impulses from the amputated limb which can give rise to such sensations.

In cases in which the spinal cord has been injured and a spinal-fluid block is present, we have found that with spinal anesthesia below the level of the lesion, interrupting centripetal fibers through the posterior roots into the spinal cord, this diffuse burning pain is unaffected. On the other hand, when, in the presence of the spinal-fluid block, the distal end of the proximal segment of the injured spinal cord is anesthetized by spinal anesthesia, the pain disappears. To us this indicates that the site of origin of the pain is the distal portion of the proximal seg-

ment of the injured spinal cord. Therefore, posterior-root section and any operation upon the sympathetic nervous system would be futile.

There remains to be considered the advisability of chordotomy. Chordotomy performed by trained and qualified neurosurgeons is associated with no serious danger of complications; but chordotomy performed by inexperienced surgeons, often untrained in neurosurgery, is a dangerous procedure indeed. If it were assumed that a patient having complete paralysis of motion and loss of sensation below the level of the lesion was doomed to remain in that state during the rest of his life, it would make little difference whether the level of his lesion were to be raised to one a little higher in the thoracic portion of the cord. However, as will be shown, some recovery of motion and sensation, or of one alone, may occur when for many months a complete interruption of the spinal cord has been assumed to be present.

Even if the recovery does not result in useful motor function, it is associated with beneficial effects, such as the healing of decubitus ulcers, lessened incidence of later-developing decubitus ulcers, and improvement of bladder, bowel, and genital function.

For these reasons, the indications for chordotomy must be assessed very carefully. In our series, 16 patients have been subjected to chordotomy from one to three times each, with a total of 23 operations for the group. In only two patients was chordotomy followed by complete and permanent cessation of all types of pain. For both, two operations were required to achieve this result. In five patients six chordotomies produced no effect whatsoever on the preexisting pain. In the remaining nine patients, the procedure produced temporary relief, or relief from only one type of pain present (usually root pain) and not from other pain, or the operation was actually followed by an onslaught of pain that had not existed previously.

What is the life history of this pain? In 1947, in a high incidence of cases, in fact, in 82%, this pain was noted as a spontaneous complaint. At that time, in many instances it seemed severe enough to warrant active therapy. As time passed, this type of pain receded from consciousness, and its presence was elicited only on direct questioning. Thus, of 217 patients, it was spontaneously complained of by 20%. In some cases it had diminished in severity as well, so that even when attention was directed to it the description of the pain indicated its lessened quality. At present, it is rare to find a patient with severe distal pain of this character, and there exists only a well-repressed awareness of easily borne distress.

Many times we have been gratified to find that the postponement of surgical measures to relieve pain was justified by the development of this high threshold for the pain. It is our conclusion that for distal "burning pain" posterior-root section and sympathectomy are contraindicated, since the site of origin of the pain is in the distal end of the proximal segment of the injured spinal cord. Because such pain in time both diminishes in severity and recedes in consciousness, chordotomy should be postponed as long as possible, and resorted to only in exceptional cases. It should be permitted to be performed only by experienced and qualified neurosurgeons.

SPASMS

The word is usually used loosely to denote involuntary movements of the extremities. Included in this definition are the pseudospontaneous spasms and the reflex movements which follow known stimulation, usually of the extremities. In the former case the motor movements are usually bilateral and symmetrical; in the latter, they are unilateral and may be followed by contralateral movement. Rarely are they symmetrical and bilateral. The patient is unable to distinguish between them, and the information obtained from patients who have not been observed from the beginning of injury probably includes both. Therefore, estimates of frequency, etc., vary in accordance with the source of information. Fortunately, the life histories of the two types are similar; this is not strange, since pseudospontaneous spasms result from stimuli, but they are usually midline stimuli, and often visceral, such as a full bladder or rectum. The spasms are also evoked by stimuli from sacral decubitus ulcers, handling of the genitals, and movement of catheters.

These spasms constitute a serious disability not only in evoking discomfort, but in interfering with healing of bedsores, genitourinary care and rehabilitation, and, rarely, in leading to dislocations and fractures. No medicament has been found of any real value, despite reports elsewhere to the contrary.

Therefore, section of the obturator nerve, and rhizotomy, usually anterior, less frequently posterior, have been resorted to. If the rhizotomy is successful in either case, the increase reflex activity is abolished. However, once anterior rhizotomy is performed, the patient can never have any useful return of motion.

With rare exceptions, for some time after injury, the patient has complete paralysis of motion and sensation. Later, recovery may occur at variable periods, and useful recovery has been seen when it began as late as five months after injury.

Since we have found that actual recovery, in some instances fairly useful, occurs in 21% of cases, great caution should be exercised in deciding that a rhizotomy should be performed. Not only is there indication for caution because of the possible recovery, but the life history of these spasms also emphasizes it.

First, the incidence of the spasms varies in relation to the segments affected, although succeeding analyses vary with the particular group. They all indicate that 60 to 70% of all patients with spinal-cord injuries have these spasms and that they are present with all cervical lesions of the cord, with 75 to 85% of thoracic lesions, with 31 to 44% of lumbar lesions, with 30% of lesions of the conus and cauda equina, and, of course, not with lesions of the cauda unless complicated by chordotomy.

They begin, increase, reach a peak, which is maintained, and then, in a great number of cases, diminish in severity, if not in frequency. In 71% of all cases they diminished in severity. During the early period of caring for the patients, the severity of the spasms was sometimes so great that a considerable number of the men were tied to the bed, chair, or frame. It is rare now to see a patient with spasm which seriously interferes with treatment or activities, and, of course, none need be restrained. Only 18 rhizotomies have been performed among the 589 pa-

tients, most of these being done before the patient's admission to the Hines hospital. Judged by whether there was an increase in rapidity of rehabilitation, or in degree, as measured by the Department of Physical Medicine, the results were not favorable in most cases.

With the Department of Neurosurgery, we early agreed that unless the lesion was proved to be anatomically complete, rhizotomy was to be done only on rare occasions, when it would be a life-saving procedure. We have not regretted that decision.

We believe that by adequate treatment of bladder and bowel dysfunction and by healing of bedsores, we have been able to bring about a diminution in the severity of these reflex movements.

DECUBITUS ULCERS

There is no uniformity of opinion as to the cause of decubitus ulcers, or so-called trophic ulcers. By some they are considered to be solely neurogenic; by others, solely traumatic. The truth probably lies somewhere between these two extremes of thought. That these so-called trophic ulcers are related to a dysfunction of the nervous system is almost self-evident.

The amount of trauma to the limb on the side of a unilateral experimentally produced section of the sciatic nerve, which resulted in numerous ulcerations of the foot, was in our experience no greater than that to which the control limb was subjected. With peripheral nerve lesions in man, although ulcers appeared only when the part was traumatized, they developed only in areas of defective sensation. Despite total paralysis of the lower extremities as the result of anterior poliomyelitis and the accompanying pressure and immobility, ulcers are indeed rare. On the other hand, in syringomyelia and tabes dorsalis they are common.

If the loss of sensation in spinal-cord injuries resulted in less frequent change of position, and this produced more continuous pressure on a part and was the full explanation of pressure sores, these lesions should develop as frequently late after the injury as soon after it. This was not the case. Severe sacral decubitus ulcers were the first to be observed in large numbers; then, after a time, when the patient was able to turn from side to side or was turned on his side, trochanteric ulcers appeared, and when, finally, he sat in a wheel chair or was driven about ischial ulcers appeared. Because of this, the definition of the early occurrence of ulcers differs with respect to the time allotted to this period. We defined early sacral ulcers as those occurring within the first month, early trochanteric ulcers as those occurring in less than two months, and early ischial ulcers as those occurring in less than six months. Of 89 patients studied intensively, sacral decubitus ulcers had developed in one month or less in 59.2%; trochanteric ulcers, in less than two months in 24.7%, and ischial ulcers, in less than six months in 8.6%. On the other hand, sacral decubitus ulcers had developed after one month in 12.1%; trochanteric ulcers, after one month in 23.5%, and ischial ulcers, after one month in 29.7%. It is evident that in our definition of early trochanteric and ischial decubitus ulcers too short a time was allotted. However, the sacral decubitus ulcers illustrate the point that by far the greatest number develop in less than one month. It is well known that deep necrotizing ulcers, destroying tissue to the bone, may occur during the first week after injury. Another indication of a neurogenic factor is seen in the distribution of ulcers at various levels, being 100% with lesions of the cervical portion of the cord, 100% with lesions of the first to the ninth thoracic segments, 84% with lesions of the 10th to the 12th thoracic segments, and 80% with lesions below the first lumbar segment. A further indication is found in the fact that of 83 patients with complete physiologic interruption of the spinal cord, ulcers occurred in 75, or 90.5%, and of 93 patients with incomplete or recovering lesions, ulcers occurred in 71, or 76.5%.

Still another indication is found in the fact, in part referred to, that the longer the time after injury, the smaller the percentage of ulcers. Thus, of 300 cases, the incidence of ulcers which developed before the first year was 90%; the incidence of ulcers which developed one to two years after injury was 65.1%; the incidence of ulcers developing two to three years after injury was 60.4%, and the incidence of ulcers developing three to four years after injury was 40.8%. Not only was the incidence related to time of onset, but the number of ulcers per patient diminished as the time between injury and development of ulcers increased. Thus, in intervals of the same sequence as those noted above, the average number of ulcers for each patient was 2.78, 2.74, 1.74, and 1.6.

Another indication is found in the comparative incidence of ulcers in patients in whom pain and temperature sensibility had partially recovered early after injury. Of 64 such patients, 14, or 22%, had ulcer at some site, whereas the incidence of ulcer in patients with complete interruption of the cord was 90%. In only two patients did decubitus ulcers develop at the Veterans Administration at Hines when recovery of pain and temperature sensibility had partially been accomplished.

In view of all these correlations, we believe that there is an important neurogenic factor in the development of ulcer. This is, of course, not the only factor, as shown by the fact that, although the population of the patients with injuries to the spinal cord is increased by new admissions and depleted by discharge of older patients, the incidence of ulcer and the number of ulcers per patient have steadily decreased since 1946. Thus, in 1946, 75% of patients had ulcers, with an average of 3.4 ulcers per patient; in 1947, 40% of patients had ulcer, with an average of 2.8 ulcers per patient, and in 1948, 25% of patients had ulcer, with an average of 1.9 ulcers per patient. This decrease occurred despite the inclusion of a number of the old ulcers in the material, for which surgical results were not as successful. Another indication of the possible prevention and spontaneous healing of early changes which later would perhaps lead to severe ulcers is found in the comparison of the percentage of patients in whom ulcers developed in other hospitals, where they were treated for the first six months after injury, and the number admitted to the Veterans Administration Hospital, Hines, Ill., less than six months after injury in whom ulcers developed. Of 67 patients received at the Hines hospital, 73% had sacral decubitus ulcers; 40% had trochanteric ulcers, and 4.4% had ischial ulcers. Fifteen per cent of patients were

without ulcer. Of 32 patients admitted directly to the Veterans Administration Hospital at Hines, sacral decubitus ulcers developed in 3.3%.

The problem of bedsores in patients with lesions of the spinal cord and cauda equina presents a different picture from that seen in 1946 and 1947. In 1947, when the intensive effort to treat existing ulcers was well under way, about 30% of the patients with ulcers had rather extensive, undermined, and necrotizing lesions, usually in the sacral and trochanteric areas. At present, except in newly admitted patients, such extensive ulcerations are no longer observed. The ulcers now found are smaller and are usually not widely undermined. This is probably the result of careful inspection of critical areas by the patients themselves and by hospital personnel. The patient, as a rule, has sufficient information to understand the early signs of impending ulceration, such as persistent edema and abrasion. The patient and the hospital personnel are eager to prevent actual ulceration and to report such signs, the prompt preventive treatment being fully expected and actually received.

During the second world war, and immediately after the cessation of hostilities, numerous extensive ulcerations were accepted as an unavoidable exigency of war, but now the admission of one or two patients with signs of evident neglect produces consternation.

During the last two years an organized and closely checked effort has been made to determine the efficacy of conservative treatment of decubitus ulcers. The ulcers are measured every week and are dressed frequently in a properly equipped room by personnel trained in the technique of applying satisfactory dressings. All types and sizes of ulcers have been treated. The following agents have been applied or used: (1) soap and water, (2) hydrogen peroxide, (3) ultraviolet radiation, (4) zinc oxide ointment, (5) nitrofurazone (furacin®) ointment, (6) sulfathiazole ointment, (7) iodochlorhydroxyquin U. S. P. (vioform®) ointment, (8) petrolatum U. S. P., (9) thimerosal N. F. (merthiolate®), (10) bacitracin ointment, and (11) chlorophyll ointment and liquid.

The least effective agent was found to be sulfathiazole, and the most effective agent is generally agreed to be chlorophyll ointment and liquid. Of the ulcers treated conservatively, 23 per cent healed.

Ulcers presenting no tendency to heal under conservative treatment are operated upon. The operation usually entails the radical excision of the ulcer, including the underlying bone, and closure by primary approximation or by rotation of flaps and skin grafting. Ninety-six per cent of the ulcers operated on healed successfully. In 6% recurrences were noted in the surgical patients who were discharged from the hospital and who had to return. The causes of recurrence are believed to be as follows: carelessness on the part of the patient; trauma, such as may result from accidental friction and abrasion during falls, getting in and out of bed, automobiles, chairs, and other implements used in daily living; prolonged sitting; cross-country trips; unsuitable and ill-chosen labor activities, and associated alcoholism. A large percentage of recurrent ulcers healed under conservative hospital management. There is no evidence at present that intercurrent disease itself is associated with excessive formation of ulcers.

BLADDER

The most disastrous consequence of injury to the spinal cord in respect to mortality is the inability to urinate normally and the consequent infections of the genitourinary tract, leading to disease of the kidneys and uremia.

In the majority of cases the immediate consequence of injury was retention of urine or paradoxical incontinence, whether due to a spastic sphincter or paralysis of the detrusor muscle. Incontinence was present with only 5.5% of lesions of the first to the sixth thoracic segments, with 4.2% of lesions of the seventh to the 12th thoracic segments, and with 5.5% of lesions of the first lumbar segment and below.

The immediate treatment, as determined from a study of 199 patients, consisted of suprapubic drainage in 61, or 30.6%; of drainage by use of other continuous indwelling catheter in 86, or 43.3%; of intermittent catheterization in 29, or 18.1%, and of tidal drainage in 17, or 8.0%.

This distribution changed radically when definitive treatment planned for long periods was instituted. In April, 1946, when the patients at Vaughn General Hospital were transferred to the Veterans Administration Hospital, tidal drainage was being employed in 85% of the patients, and there remained only four patients with suprapubic drainage in 1947. A change in the function of urination had also occurred; as with reflex activities elsewhere, so in relation to urination, reflex activity of the bladder began and resulted in so-called automatic or autonomic function.

From a neurological standpoint, when a bladder, because of an increase in intracystic pressure, to an amount peculiar to each patient, resulted in reflex contraction of the detrusor and some emptying of the bladder contents, either an automatic or an autonomic bladder was stated to have developed. However, the development of such a reflex evacuation does not mean that it was adequate or that the patient by this means would avoid the necessity for forms of internal or external drainage. The amount of residual urine, the frequency of urination, or the susceptibility to infection under existing conditions led the urologist to define an automatic bladder in other terms, including almost complete emptying and no significant infection. This may be illustrated by a survey made by Dr. Benjamin Boshes in 1949, in which he found 80 cases of automatic bladder, whereas Dr. K. E. Barber found but 25 during the same year.

Automatic bladder function developed more frequently in patients with incomplete lesions (44%) than in patients with complete lesions (37%); of a special group of patients with recovering lesions it occurred in 51%. In 1947, when the material analyzed consisted of the older war injuries, an automatic bladder was found in 60% of patients. At that time some automatic function occurred with 38% of cervical lesions, with 62% of thoracic lesions, and with 70 to 75% of lesions of the lumbar segments, of the conus and cauda, and of the cauda equina. It appeared that the lower the lesion, the earlier the development of automatic function. This view was supported by the histories and interviews with 158 patients in 1950, when the range of time for its development with cervical lesions was 2 to 21 mo.; with thoracic

lesions, 1 to 20 mo.; with lumbar lesions, 2 to 12 mo.; with lesions of the conus and cauda equina, 1 to 15 mo., and with lesions of the cauda, 1 to 9 mo.

Automatic function of the bladder is very capricious and can readily be disturbed, and even disappear, in the face of complicating genitourinary infections and other bodily disease and injury, and of hydronephrosis with high residual urine.

Only four of 29 patients with significant recovery of motion and sensation had recovered normal bladder function; of these, two had very good motor and sensory recovery, recovery being graded as ability to start the flow without abdominal compression, to empty the bladder and to stop urination at will. We found that no patient with any form of indwelling catheter could start urination, 80% of the 15 patients with automatic bladder function could feel or stop urination, but only two could start urination and 13% could start, stop, and feel urination, although not normally. Despite considerable recovery of motion and sensation, return of normal bladder function was rare.

It was early recognized that for the development of an automatic bladder, for training of bladder function, to insure sufficient activity for the patient's general welfare, and for treatment by a physical-medicine program it would be necessary to terminate any form of drainage as soon as possible. Such a plan was instituted.

Whereas in April, 1946, 85% of the patients studied intensively were on tidal drainage, in 1947 the figure was 29%; in 1948, 10.6%, and in 1950, 17.7%. However, the use of other forms of indwelling catheters became necessary as the result of genitourinary infections, fistulas, bedsores, surgery, intercurrent disease and injury, and hydronephrosis with high residual urine. In 1950, of a group of 158 patients studied, 33% had indwelling catheters, including those on tidal drainage and the Baumrucker program. In the three preceding years it was about 42%.

In 1948, about 50% of the patients wore some external device draining into a condom tube or other urinal. It was felt that these patients, including some with imperfect automatic bladders, were essentially incontinent, even if not continuously, and that under this condition they did not have residual urine, and therefore the procedure was less harmful than catheter drainage. However, improvement in the bladder function has increased, an earlier treatment of more recently injured patients has diminished the number in whom such devices are necessary, so that of 158 patients recently studied, 40% needed no device of any sort, whereas in 1948 only 4% needed none.

Although we had not been able to bring about that approximation to useful and safe function reported elsewhere, in addition to the changes in necessary impedimenta, some evidence of the success of management may be reflected from a comparison of the incidence of infections, stones, and necessity for cystoscopy. In 1946, 53.8% of the patients suffered from serious cystitis; in 1947, 48.8%; in 1948, 42.3%, and in 1949, 46.6%. In 1946 the mean number of infections per patient for that year was four; for 1947, three, and for 1948 and 1949 each, two. It must be remembered that new admissions of recent origin are being added to the colony. There were more cases of pyelitis in 1946; thereafter, the incidence remained almost the same. The same can be said of epididymitis and fistulas. In 1946, 35% of the patients had bladder stones; in 1946, 16.6%; in 1948, 16.3%; in 1949, 17.7%, and in 1950, 8.7%. The percentages for kidney stone were about the same. There were 224 cystoscopies in 1946, 118 in 1947, 88 in 1948, and 99 in 1950. (It may be of interest to note that 1,142 genitourinary surgical procedures were performed from April, 1946, to May, 1950.)

For psychological reasons, it had in former years been impressed upon the wounded veterans that they were disabled only by reason of their inability to walk and that otherwise they could be well and healthy men. This statement certainly is a deception. That it is a deception may be demonstrated from the results of autopsies. There have been 17 deaths among our patients; in 10 of these the cause of death was said to be uremia. In eight patients severe cystitis was found; in six, pyelonephritis; in nine, a pathologic condition of the kidneys including anemic infarct, nephrosclerosis (2), hemorrhage, acute contracted kidney, chronic passive congestion, degeneration of tubules, cloudy swelling, and subacute lipid nephritis; in one, abscess of the kidney; in three, amyloid infiltration of the kidney; in one, perirenal abscess, and in one, prostatic abscess and renal calculi.

This, of course, is not the whole picture, for in many instances, had not some succession of disasters to other parts occurred, the patient might have survived. Nevertheless, many die of disease of the genitourinary tract, and others, when the organism is insulted by disease or trauma, succumb to uremia, which in a normal man would not have occurred.

The development of an automatic bladder, bladder training, and the regulation of water intake, all are an important part of the management of spinal-cord injuries. Nevertheless, it must be remembered that "the bladder is a social convenience but the kidneys are essential for life."

Treatment of the neurogenic bladder produced by injury to the spinal cord cannot be described categorically. Even the general principles must be studied again and again before any uniformity of opinion may be brought about. Genitourinary complications succeed one another during the life of the patient, and one must be alert to them, to reexamine the patient at regular intervals even if other indications of disease do not manifest themselves, to change the method of management in accordance with the indications for a given patient or time, and, if the patient is to be discharged, to instruct him fully concerning his potential dangers and to put him in touch with a personal physician, hospital, or Veterans Administration hospital, so that early treatment for any complication may be instituted.

BOWEL CONTROL

As with the bladder, so with the bowel after injury to the spinal cord, voluntary emptying is impossible. This results in one of the very disabling sequelae of such an injury, not only in discomfort but in liability to infection of the bladder from bacterial contamination of bowel contents, and to injury. Regular periodic enemas were the rule after injury and were continued for a long period thereafter. Thus, in April, 1946, when the Veterans Ad-

ministration assumed responsibility of the care of the patients, almost 100% of them were on an enema program. We soon felt that it was as important to bring about a state of automatic function of the bowel as of the bladder.

Immediately after injury, questioning of the wounded veterans elicited the information that 49% of those with cervical lesions had retention, and 51%, incontinence; 53% of those with thoracic lesions had retention, and 72% of those with lesions of the lumbar region or below had retention and 28% incontinence. These figures, derived from soldiers' statements, are misleading. The state of bowel action depended a great deal upon the consistency of the stool. When it was formed and by long retention became dehydrated and hard, "retention"—or, better, obstipation—occurred. When, for some reason, loose stools were present, as after catharsis, incontinence occurred; more extensive studies on the very early state are necessary before it can be said that a true retention occurs as frequently as is here reported. Since these reports deal with the early weeks after injury, tonicity of the sphincter, like tonicity of skeletal muscle, probably had not developed. It can be seen by comparing the tonicity of the external sphincter in the peace material with that in the war material, which consists of patients who had been injured a longer time before being examined than had the patients of the peace material, that a tonic external sphincter was present in 40% of the war material and in 80% of the peace material. With lesions of the cervical portion of the spinal cord, the external sphincter was spastic in both groups in about 90% of patients (in 87% of the peace material), with lesions of the lower thoracic region it was spastic in 30% of the war material and in 75% of the peace material. With lesions of the lumbar and lower levels, spasticity appeared in a smaller number, 23%. Some time after injury there is a relaxation of the tonicity of the external sphincter, and the condition differs from that originally seen.

As with the bladder, so with the bowel, some time later a reflex emptying may become possible. It becomes possible both with injuries of the spinal cord, in which a reflex contraction of the bowel musculature occurs and relaxation of the sphincter permits an evacuation, and with lesions of the cauda, in which an axonal reflex produces contraction of the bowel musculature and a patulous external sphincter allows the contents to escape.

Practically all the 244 patients studied in April, 1946, relied upon enemas for bowel evacuation. This necessitated a very large staff of attendants, who were kept busy, as in an assembly line, washing out the contents of the patients' lower bowel. The medical work on the ward was impeded; the morale of the patients was at low ebb, and an enormous quantity of supplies was necessary.

Aside from the patient's fear of soiling when traveling or on leave, the lack of confidence, the inconvenience and waste of time, and the time lost from healthful activities, the adverse effects of this program include the symptoms and signs and disturbance of other functions.

This is particularly true of patients with lesions in the cervical and upper thoracic portions of the spinal cord, in whom the increased autonomic reflexes result in hypertension, headache, profuse sweating of the face, chills, dizziness, and, in many, loss of consciousness. In addition, nausea, and at times vomiting, abdominal discomfort, anorexia, and increase of spasms and of burning pain were common to all levels of lesions. Moreover, in many patients disagreeable symptoms of ill-being persisted for one or more days, so that the patient was more or less continuously harassed by the results of the procedure. Accordingly, a program was instituted to teach the patient to accomplish emptying of the bowel first by reflex evacuation, with the later development of automatic function.

We already knew from a host of barium-meal studies that there was no impediment to the flow of barium as far as the large bowel. We also had learned from studying the appearance and retention of charcoal meals that there was a great delay in the passage of the stool along the large bowel, as well as the rectum, and that after the first appearance of charcoal a number of days could elapse before it completely disappeared from the stool. It was planned to develop reflex defecation first by stimuli designed to stretch the anus produced by the patient's finger, wearing a rubber cot.

It was found after much experimentation that, in order to initiate a successful bowel control program, lectures had to be given the attendants, nurses, and patients on the anatomy and physiology of the bowel. Demonstrations of gentle handling of the anal region and effective evacuation of the bowel following stretching of the rectal sphincter were given the attendants. This enabled them to start the method long before the patient could carry it out and facilitated the continuation of the bowel program while the patient was very ill or was recovering from operative procedures. The patient was also taught to use this method; his fear of an involuntary movement at home or in his car on the road was allayed, and he was convinced that incontinence would not occur. In those cases in which enemas had been taken for many months, there was at first a sluggish or no response to rectal stretching. However, as the tone of the rectal muscles returned, the patient noted greater ease in producing a bowel movement, and less time was needed to stimulate contractions. The patient was encouraged to use abdominal muscles, to strain moderately, or, if these muscles were paralyzed, to utilize manual pressure in association with the diaphragm to increase intra-abdominal pressure. As these manipulations became more efficient, many of the patients induced bowel movements merely by touching the area of the anus, and then gradually discarded the external stimulus as they acquired automatic defecation with the help of mild to moderate straining.

Except in one ward of about 50 patients, where the resident's chief interest at that time was the development of a bowel control program, in which the attendants and nurses cooperated with zeal, we were misled into believing that the program had been successful in 98% of patients. We have found out that in the other wards manual extraction had been resorted to in a number of cases without the knowledge of the ward physician. A more recent and enlightened investigation of 163 patients has shown that in 63% reflex bowel function has been effected. In 18% automatic bowel movements occurred. In 8% enemas were employed, and in the remainder manual extraction was resorted to. There is no doubt

in our minds that the proportion of patients achieving reflex evacuation may be increased to 85%.

The time necessary to effect reflex evacuation varies. Of 16 patients with recent injuries, immediate results were obtained in seven when the injury had occurred two to four months before. For one patient eight months elapsed before it was effected, and for one, whose training began one month after injury, three months was required. With seven patients whose training began one to four months after injury, it had not yet become effective. A comparison of efficacy of training in war and in peace material in general suggests that reflex evacuation is easier to effect when longer periods since injury have elapsed, except in cases of injury of the lower thoracic and lumbar regions and below. The usual time for the war material was less than a month.

With the cervical injuries, it was effected in 75% of the war material and in 35% of the peace material; with injuries of the upper thoracic region, in 55% of the war material and in 25% of the peace material; with injuries of the lower thoracic region, in 55% of the war material and in 66% of the peace material, and with injuries of the cauda and conus and of the cauda alone, in 33% of war material and in 50% of peace material when the lesion was complete and in 100% when the lesion was incomplete.

Automatic bowel function occurred more frequently in the patients with considerable motor and sensory recovery. Of 13 such patients, four could start defecation. Of these, three could feel the passage of the bowel movement. This return of sensation is also present among some patients with automatic bladder function. None could interrupt defecation. As with the bladder, so with the bowel; very few achieve normal defecation, despite considerable motor and sensory return.

To change from use of enemas to automatic defecation may take only a few days, and this can be accomplished soon after the period of spinal shock.

The discontinuance of the enema management, although some patients resort to manual extraction, has been of great benefit to the patient and to the hospital. There has been a beneficial effect upon the morale of the patients; time has been freed them for useful occupation and treatment; appetites have increased, and all the complaints previously referred to have disappeared. For the hospital, it has made unnecessary the really tremendous number of linen articles and has made possible, along with other details of management, such as that of genitourinary complications, and bedsores, a considerable reduction in the number of attendants. Thus, in April, 1946 there were 179 attendants; in March, 1947, 140; in December, 1947, 130; in April, 1948, 120; in December, 1948, 113; in July, 1949, 106, and in January, 1950, 96. This decrease is related only to the lessened need for attendants.

RECOVERY

The potential recoverability of an injury to the spinal cord plays a part in the decisions concerning treatment and management of the patient.

Although at a time when there is paralysis of all motion and sensation no differentiation between complete anatomic section and complete physiologic interruption is possible, in some cases there is later a return of motion, sensation, and other functions. These functions begin to return at variable periods after injury, at times quite late. This observation is not in accord with the dictum that unless some function is found in the first 48 hours no useful function will return. It has been found impossible, from a study of posture and reflex activities to differentiate anatomic section from physiologic interruption. It is necessary to await some recovery of motion or sensation, and therefore those only who show such a recovery have partial lesions. When we, as well as others, have attempted to use posture and reflex activities as an index of completion of a lesion, many errors have been made.

Of 378 patients, some recovery was found in 93, or 24.6%; of sensory function in 89, or 21%, and of motion in 87, or 20%. Of the 87 patients recovering motion, 23, or 26.4%, had slight recovery; 39, or 44.8%, moderate recovery, and 28.8%, marked recovery. Of the 89 patients with sensory recovery, 18% had slight recovery; 45%, moderate recovery, and 37%, marked recovery. With lesions of the cervical portion of the spinal cord, there was a greater percentage of marked recoveries of sensory function than at other levels—51% of the cervical lesions, 16% of the thoracic lesions, 21% of the lumbar lesions, and 33% of the lesions of the conus and cauda. One therefore should be more cautious in respect to rhizotomy in the case of lesions of the cervical region.

The earlier the return of function, the better will be the recovery; thus, with respect to sensation, the median time for the first return of sensation for the whole group was three months, the range being from one week to a number of years. Patients whose recovery was slight showed their first return at a median period of six months; those with moderate recovery, at a median period of four months, and those with marked recovery, at a median period of two months. Sixty-one per cent of the patients with marked recovery, 33% of the patients with moderate recovery, and 31% of the patients with slight recovery showed beginning return in two months or less. However, marked recovery resulted even if the first return was as late as one year.

In regard to motion, 22% of patients with final slight recovery, 47% of those with moderate recovery, and 79% of those with marked recovery had their first return of motion at two months or less, although marked motor recovery occurred when the first return was as long as five months after injury. This indicates that even if recovery of motion or sensation does not occur within a few days, unless the lesion is proved to be a complete anatomic section, recovery may still begin some months after. As an indication of what was considered marked motor recovery, we may mention ability to walk without braces or crutches, or without crutches, or with the aid of braces or cane only, or full recovery of one extremity, or of motion in the thighs and legs, but not of the feet, and, finally, ability to walk without cane, crutch, or braces.

It is of interest to note here that in 36, or 37% of the 93 patients, psychic erection was possible and emissions occurred in 17, or 17%. A sensation of orgasm was present in 14, or 14%. This recovery was unrelated to recovery of bladder and bowel function, at times occurring with the latter, at times independently.

PHYSICAL MEDICINE AND REHABILITATION

A program for physical medicine and rehabilitation is one of the most important parts of the management of the residuals of injuries to the spinal cord and cauda equina.

It contributes to the general well-being of the patient at a time when treatment may be limited to bed activities, and it becomes progressively useful as time and achievement develop. It has been found to be beneficial in increasing appetite, weight, and general strength; in improving circulation, probably in preventing the further development of bedsores, both because dexterity of movement in avoiding injury is developed and a good state of health is promoted. Likewise, it is held valuable in preventing formation of calculi, in diminishing genitourinary infection and in improving bowel action. Nothing contributes more to the morale of the patient, and, as will be seen, the independence brought about by dexterity of movement is the most important factor in the approximation to normal activities.

With the purpose of bringing out certain general principles, 549 patients with lesions of the spinal cord and cauda equina were treated in the physical medicine and rehabilitation service, and the results were analyzed. The patients were divided into two main groups, those with lesions of the cervical portion of the spinal cord, exhibiting paralysis of the lower extremities, as well as of various parts of the upper extremities, and those with lesions below this level—the thoracic and lumbar regions, and the conus and cauda, with paralysis only of the lower extremities and various levels of the trunk. Of the former there were 96 patients, and of the latter, 453. The latter consisted of 327 patients with lesions of the thoracic segments, 106 with lesions of the lumbar portion of the spinal cord, and 20 with lesions of the cauda equina.

In evaluating achievement, a rearrangement of the Veterans Administration's form 10-2555, "My Own Score," served as an index of correction of dysfunction of such activities as were brought about by the injury.

A point system was devised categorically, certain values being assigned to different activities, first for lesions of the cervical region and then for lesions below that level. It is obvious that in case of the latter no credit should be given to certain activities, such as eating and shaving, when the lesion is in the dorsal portion of the spinal cord, and it is equally obvious that it is harder for a patient with a lesion of the cervical portion of the spinal cord to achieve practically all such activities as putting on clothes, propelling a wheel chair, and ambulation, and endurance activities.

What of patients with lesions of the cervical portion of the spinal cord? To the activities collected as Group 1, described as bed activities, with or without the assistance of such devices as splints, cuffs, enlarged grips and holding devices, and counterbalances, a score of 10 points was given when the item was fulfilled. These achievements, which included shaving, eating, and washing, can be performed even though the patient is confined to bed. Logically, those with injuries below the spinal cord were given no credit for such activity.

The activities of the next group in order of progression were those of hand and wheel chair activities, and for their accomplishment 20 points was allotted. The third group consisted of activities related to ambulation on the level ground and erect position activities, and 30 points was allocated to them. The last group, described as "ambulation with elevations and endurance activities," constituted an additional 40 points, making a total of 100 points.

In the case of injuries below the cervical portion of the spinal cord, patients who were trained in the activities in Group 2 were given 15 points; those who could perform Group 3 activities were allotted 25 points, and those who achieved performance in Group 4 activities were awarded 35 points, making a total of 75 points.

The difference in the total points allotted to these two groups was due both to the unallowed credit for activities in the upper extremities in the patients with injury below the cervical region and to the weighting somewhat higher of all the activities of patients with cervical injury, since it is more difficult for patients with paralysis of parts of the upper extremities to perform any activity.

Because of the frequent assumption of the futility of any attempt at restoration of function, or substitution therefor, in the upper extremities when the cervical portion of the cord is injured, the statistics of achievement in cases of lesions at this level are of interest.

Of 96 patients with such lesions, 19, or 19.7%, performed all required possible activities; 24, or 25%, all activities of Groups 1, 2, and 3; 29, or 30.2%, activities of Groups 1 and 2, and 17, or 17.7%, activities of Group 1. In 7, or 7.2%, no rehabilitation was effected. It should be recalled that Group 1 consisted of hand activities, and that Group 2 required eight activities limited to the upper extremities and 16 to the trunk, as well as the upper and lower extremities. Moreover, for the completion of activities of Groups 3 and 4, the upper extremities play a large part in the successful use of braces. These results indicate that the outlook for these patients is not as discouraging as it would seem on casual consideration, and that, as in anterior poliomyelitis, reeducation is successful and substitution of useful function possible.

Does the level of the lesion play any part in the final achievement? In comparing the percentages of patients with lesions at various levels who achieved full activity, (that is, 100 points for cervical lesions and 75 points for lesions at other levels), one finds that 19% of patients with cervical lesions, 32% with thoracic lesions, 62% with lumbar lesions and 70% with caudal lesions accomplished full achievement. Complete achievement was greater as the level descended.

The time required for this accomplishment was an average of 9 mo. for cervical lesions, 7.2 mo. for thoracic lesions, 6.2 mo. for lumbar lesions, and 4.5 mo. for lesions of the cauda equina. The lower the level, the shorter the time necessary for complete rehabilitation.

Is rehabilitation effected with greater ease when the lesion is incomplete? By computing the average of the total points for patients with lesions at various levels and comparing the average for complete lesions with that for incomplete lesions, the following figures are obtained:

Of 96 lesions of the cervical region of the spinal cord, the average for 18 complete lesions was 0.7 point, and the average for 78 incomplete lesions was 54 points. Of 327 lesions of the thoracic portion, the average for 194 complete lesions was 52 points, and that for 71 incom-

plete lesions was 133 points. Of 106 lesions of the lumbar portion of the spinal cord, the average for 38 complete lesions was 47 points, and that for 78 incomplete lesions was 82 points. Of 20 lesions of the cauda equina, the average was 73 points for three complete lesions and 74 points for 17 incomplete lesions.

Greater degrees of rehabilitation are possible when the lesion is incomplete. In the case of pure lesions of the cauda equina the number is too small to be statistically significant. The chief complications regarding full accomplishment of rehabilitation are decubitus and other ulcers, spasms, contractures, and genitourinary complications.

Fourteen patients, or 14.5%, with cervical injuries; 61, or 20%, with thoracic injuries; 27, or 27.3%, with lumbar injuries, and 2, or 10%, with lesions of the cauda equina, a total of 104, or 18.8%, had decubitus or other ulcers.

With lesions of the cervical region, the average time required to obtain 100 points was 36 mo. when ulcers were present and nine months when they were not. For 60 points, the average was 17 mo. for patients with ulcers and eight months for those without; for 30 points, the average was 12 mo. for patients with ulcers and 4.2 mo. for those without; for 10 points, the average was 31 mo. for patients with ulcers and 3.7 mo. for those without. With thoracic lesions of the cord, the time required to achieve 75 points was 2.2 mo. for patients with ulcers and 7.2 mo. for those without; to achieve 40 points, 19 mo. for patients with ulcers and nine months for those without; to achieve 15 points, 14 mo. for patients with ulcers and 3.6 mo. for those without. With lesions of the lumbar segments, the time required to achieve 75 points was 19 mo. for patients with ulcers and seven months for those without; to achieve 40 points, 16 mo. for patients with ulcers and five months for those without; to achieve 15 points, 12 mo. for patients with ulcers and 2.5 mo. for those without.

Spasms delayed rehabilitation to about the same degree in nine patients with cervical lesions, 33 patients with thoracic lesions, and 15 patients with lumbar lesions, a total of 57 patients, or 10.3%.

Contractures also delayed rehabilitation to about the same degree in 15 patients with cervical lesions, 18 patients with thoracic lesions, and 11 patients with lumbar lesions, a total of 44 patients, or 8.2%. The distribution of genitourinary complications was as follows: 15 patients with cervical lesions, 11 patients with thoracic lesions, and 6 patients with lumbar lesions, a total of 32 patients, or 5.8%. In the group of 549 patients, 222 lesions were produced by gunshot wounds, and 257 by fracture dislocations, and 70 were due to causes not related to injury. No statistically significant difference in ease or degree of rehabilitation was effected among the three groups.

A comparison was made of the rehabilitation effected when the patient had been injured under battle conditions and subjected to treatment limited by the conditions of war, and the rehabilitation effected when the patient had been injured under conditions comparable to civilian life and had then found his way to this hospital. It was found that the civilian type of patient attained effective levels of rehabilitation in a shorter time than the patient injured in battle. It may be possible that the civilian patients were not subjected to complicated wounds and that they received definitive treatment earlier. It is also true that the time after injury plays an important role in final achievement.

A rehabilitation program was started with 207 patients six months or less after injury. Injuries occurred under conditions of civilian life in 154 of those patients, and in battle, in 53. It was consistently found that the earlier the veteran was started on a physical-medicine and rehabilitation program, the better were the results and the less the time required to achieve them. Therefore, the most important difference between battle and civilian conditions is the lapse of time between injury and institution of a physical-medicine and rehabilitation program.

It is of interest to conclude with some figures beyond those concerned only with the achieving of successful movement. Of 78 patients who have been discharged, 22 are in college; 28 are in trade schools; 24 are self-employed, and 4 are employed by others. In the hospital, 10 additional patients received college credit; 22 received high-school diplomas, and 39 were engaged in various avocations.

STATE OF GENERAL HEALTH

In earlier reports, attention has been called to widespread hypoproteinemia, reversal of the albumin-globulin ratio, severe secondary anemia, and amyloidosis.

The occurrence of such states of ill-health varies in respect to time and to where and how the patients are treated. In April, 1946, when we assumed responsibility for the care of these patients, there was a significant number of abnormal albumin-globulin ratios; there were no significantly low amounts of total protein or hemoglobin or of low red blood cell counts. Only 11% of the patients had a red blood cell count of less than 4,100,000, and less than 3% had hemoglobin of under 12 gm. per 100 cc. In about 24% the total protein was less than 6.55 gm. In April, 1946, 46.6% showed an albumin-globulin ratio below 1.5, and 12.4%, a reversal. In April, 1946, only 1% had a ratio above 3.0, and this rose to 30% by July, 1946, the number thereafter diminishing and disappearing. In some instances the diminution of globulin was astounding, in some falling as low as 0.4 gm. per 100 cc. The percentage of albumin-globulin ratios below 1.5 diminished as the months elapsed. In 1949, in most instances the albumin-globulin ratio had assumed a normal value.

In 1948, in 1,172 determinations on 150 patients, significantly low levels of total protein occurred in only 4% of the 150 patients. In only 14 patients was there evidence of a mild hypochromic microcytic anemia.

Some indication of the general state of health may be derived from noting the loss of weight, which is constantly found in these cases. A group of 86 patients were studied with respect to the loss of weight, the time at which the peak of loss of weight was reached, and the amount of weight recovered.

The loss of weight ranged from 10 to 120 pounds (4.5 to 54.4 kg.). The mean loss of weight was 55.6 pounds (27.8 kg.). Twenty-five per cent lost 70 pounds (31.8 kg.) or more. The time when the peak of loss of weight occurred ranged from one month to one year, except for four patients, who continued to lose weight.

The mean time was five months. In one case there was a loss of 70 pounds (31.8 kg.) in the first five weeks.

Treatment devised to improve the physical well-being of the patients resulted in some of the lost weight being regained. The range of weight regained was from 0 to 90 pounds (0 to 40.8 kg.), with a mean gain of 28.71 pounds (14.4 kg.). Five patients regained no weight but did not continue to lose, and four continued to lose weight; four gained more weight than they had lost. The terminal loss of weight ranged from 0 to 80 pounds (0 to 36.3 kg.), with a mean of 31.56 pounds (15.8 kg.). There was no correlation between level of the lesion or injuries of war and peace and the loss of weight.

In a small number of patients ultimately having significant recovery of motion and sensation, the initial loss of weight was less than in the other patients. The lessened indications for transfusions noted elsewhere as years elapse also emphasizes the poor state of health seen originally. Thus, in 1946 there were 569 transfusions of blood and plasma, and in 1949, 249 transfusions.

Attention should be called to the state of ill-being produced by dysregulation of metabolic disturbances and changes in autonomic reflex function when the injury occurs in the cervical and upper dorsal segments. In such cases, diabetes insipidus occurs. Temperature regulation is disturbed, and pyrexia results in hot weather. Because of uncompensated orthostatic hypotension numerous instances of loss of consciousness are noted on changes from the horizontal to the vertical position. At times, abdominal binders are of assistance, and in most instances some autonomic control returns, and the incidence of unconscious states diminishes. Reflex hypertension from distended bladder or rectum and from enemas results, and headache, faintness, and dizziness are often reported. There is evidence that sugar metabolism is disturbed, and it is probable that disturbance of other metabolic functions will be found. There was no disturbance in hunger, appetite, thirst, satiation, or thirst or hunger as the direct result of the injury at any level. A study of the cause of death likewise gives an indication of the resulting lesion. There were 17 deaths among 767 patients admitted, or 2.2%.

Of the 17 patients who died, autopsy was performed on 11, and detailed postmortem reports are available. The causes of death of the 17 patients as listed on the death certificates were as follows, in order of frequency: pyelonephritis, 11 patients; uremic poisoning, 10; bronchopneumonia, 4; hemorrhagic cystitis, 2; ulcerative colitis, 2; pyonephrosis, 1; meningitis, 1; hepatorenal syndrome with vascular collapse, 1; coronary occlusion, 1, and rheumatic heart disease with mitral stenosis and mural thrombi, 1. In the 11 patients on whom autopsy was performed, gross pathologic findings were recorded and are listed in order of frequency of the organs involved (in addition to the primary lesion of the cord): in the lungs, 11 patients; in the liver, 10 patients; in the kidneys, 8 patients; in the bladder, 8 patients; in the skin (decubitus ulcers), 7 patients; in the prostate, 5 patients; in the heart, 5 patients; in the bones (osteomyelitis), 5 patients; in the stomach (gastritis, ulcers), 3 patients; in the testes, 3 patients; in the large intestine, 2 patients; in the small intestine, 1 patient, and in the esophagus (varices), 1 patient.

It is interesting to note that amyloidosis was found in three patients with traumatic paraplegia. In all three patients both the liver and the spleen were involved, and in one the testes also showed amyloidosis, with complete absence of spermatocytes.

The cause of death is usually attributed to infection, especially of the urinary tract, and terminally of the lungs. In practically all cases of injury to the spinal cord, infection of the genitourinary tract exists in a mild or severe degree. This occurs despite the routine use of antibiotics and the careful nursing care and supervision of the genitourinary complications. Why should a few of these patients, all of whom have infection of the genitourinary tract, die? Is it true that their death is due directly to such an infection of the urinary tract, or are there other causative factors in the evolution of their disorder, and complicating diseases, which lead to the terminal state of uremia?

In some cases the successive events in the evolution of disorders is clearly related for the most part to the genitourinary tract. For example, the following successive episodes occurred in different cases: nephrectomy, pyelonephritis, uremia, death; or, cystitis, pyelitis, periurethral abscess, urethral fistulas, nephritis, secondary anemia, anasarca, pleural effusion, uremia, death; or, nephrectomy, nephrolithiasis, perirenal hemorrhage, bronchopneumonia, uremia, death; or, nephrolithiasis, pyelonephritis, urinary suppression, anasarca and ascites, uremia, death.

In other cases, disasters occurred in other parts and led to death, the immediate cause of which was the failure of the kidney because of previous episodes. This may be illustrated by such successions of events in different patients as hemopneumothorax, abscess of the lung, nephrolithiasis, perirenal abscess, anasarca and ascites, death; or, pathologic fracture, rhizotomy, sprue, hypoproteinemia, ileocolitis, nephritis, death; or, hypoproteinemia, repeated genitourinary infections, nitrogen retention, hepatorenal syndrome, vascular collapse, death; or, irreversible secondary anemia, pleural effusion, nephritis, uremia, death.

In some cases, the death was not related to the genitourinary tract, as in the following: Onset of recurrence of rheumatic heart disease, jaundice, auricular fibrillation, congestive failure, death; or, chordotomies, osteomyelitis, chronic pancreatitis, death.

An analysis of the clinical histories of the patients who died shows that in most instances they were subject to more than infection of the genitourinary tract. Many of them had had recurrent attacks of sepsis. Most of them had undergone several surgical procedures. Severe decubitus ulcers, osteomyelitis, heart lesions, pulmonary disease, gastrointestinal complications, and general nutritional disturbances were encountered. It may be seen from the aforementioned cases that when the terminal picture was that of uremia due to renal failure other factors often contributed to such an outcome.

The importance of this approach to the problem of the "cause of death" lies in the calling of attention to appropriate measures in planning the best program of care for paraplegic patients. In addition to the use of antibiotics

and to careful routine and repeated studies of the genitourinary tract, attention is called to the general bodily status of the patient, his nutritional state, his reactions to surgical procedures, and his organs of defense concerned with antibody and resistance elements, such as the spleen and reticuloendothelial system.

ADMINISTRATION

The Center at the Veterans Administration Hospital, Hines, Ill., having a total bed capacity of 300, was first opened April, 1, 1946. It occupies 12 wards of 25 beds each. Most of the patients are placed in large wards. There are a number of private rooms; these are reserved for patients who are critically ill. It has been found that patients do much better in large wards than in private rooms.

The early problems in the treatment of spinal-cord injuries as a result of war injuries were different than those concerned with spinal-cord injuries as a result of civilian injuries. The patients with war injuries came to us with acute conditions, such as anemia, hypoproteinemia, bladder infections, calculi, tidal drainage, decubitus ulcers, malnutrition, and amyloidosis. These problems required a large nursing and attendant staff. As the result of improved and continued treatment of bedsores, bladder and bowel control and general health, the numbers necessary diminished. In April, 1946 there were 118 nurses and 179 attendants; in March, 1947, 106 nurses and 140 attendants; in December, 1947, 78 nurses and 130 attendants; in April, 1948, 92 nurses and 120 attendants; in December, 1948, 58 nurses and 114 attendants; in July, 1949, 50 nurses and 106 attendants, and in January, 1950, 44 nurses and 96 attendants.

By the end of 1949, only 34% of the patients had sustained injury as the result of war, 66% being in the hospital for civilian injuries. The civilian patients had fewer complications than patients with spinal-cord injuries resulting from war wounds, thus requiring less personnel; this also contributed to the decreased need for as large a nursing and attendant personnel. Another indication for the need of a smaller personnel now than in 1946 may be found in comparing the numbers of transfusions given patients with spinal-cord injuries for medical conditions, such as anemias and hypoproteinemia, but not for surgical conditions, in 1946 with those at the present time. In 1946, after April, there were 569 transfusions; in 1947, 516; in 1948, 297, and in 1949, 244.

Disciplinary Boards.—After the change from Army to Veterans-Administration control, a feeling of almost arrogant independence developed in the patients, who felt that they were protected by public clamor and political favor, combined with the fact that they were free from Army discipline and punishment under the Articles of War. In addition, a firm Veterans Administration policy for violations had not been developed, in spite of the efforts of the Manager to enforce the regulations. As a result, disciplinary problems began to increase and were present almost daily. The greatest problem at that time was alcoholism, and, to a less extent, gambling. Not infrequently, the patients became openly abusive of members of the ward personnel, and occasionally there were altercations among the patients themselves. Gradually the situation began to improve with regard to alcoholism as a result of constant enforcement of all violations by the restriction of passes for varying lengths of time—from one to three months. Alcoholism is still present among a few chronic offenders and crops up occasionally in cases of readmission of old patients. There is a more or less general use of alcoholic beverages on the part of almost all patients while on pass or leave from the hospital, more for social reasons than because of addiction.

Although this problem is still present, violations are infrequent and are confined largely to the winter months, when driving is hazardous and the patients are unable to move about freely, outdoors, in their wheel chairs.

Car Driving.—When automobiles for service-connected patients were authorized, a training program was instituted to teach the patients to drive; and when they became proficient, they were permitted to drive their own cars and were licensed by the state. There were a number of instances of patients who, without permission of the Veterans-Administration driving school, acquired licenses by going to nearby towns. At first there were a number of automobile accidents, in excess of those in the general public, but at this time the situation has improved to the point where there are very few. The proficiency and ability of individual drivers have improved greatly with the lapse of time.

Games.—Games in which patients with spinal-cord injuries can injure themselves are not permitted. For example, basketball games are a dangerous sport in that a patient may sustain a fracture or acquire a decubitus ulcer as a result of friction. Our patients were prohibited on medical grounds from participating in the championship basketball games that were touring the country last year. They have the facilities of a large gymnasium, where they can practice archery, bowling, and other harmless sports.

122 S. Michigan Ave.

ABSTRACT OF DISCUSSION

DR. L. W. FREEMAN, Indianapolis: Only a few years ago, opinion was strongly entrenched to the effect that few paraplegics could be expected to survive the many complications facing them, and those who did could look forward to little more than a parasitic life. The second world war altered that concept, when the Surgeon General began to make special provisions for their care. Thus, men like Bors and Kuhn were able to evolve centers for special care. Some of these were remodeled and expanded before being turned over to the Veterans Administration. That these centers have been maintained, and even improved, as is indicated by the present paper, is a tribute to the insight and ability of Hawley and Magnuson. The most important factors in the success of this type of case handling have been the segregation of the patients, the establishment of the wards at a department level, and the integration of specialty services. To illustrate Dr. Pollock's reticence in recording his actual achievements, buried in the statistics presented, I should like to point out that it was some of his own patients who initiated the drive to make the excellent care they received available to the civilian paraplegic. It was to this end that they, the veteran paraplegics, formed and incorporated in the State of Illinois the National Paraplegia Foundation, on whose medical advisory committee I have the privilege of serving. Dr. Pollock has emphasized the need for a cautious approach to the vari-

ous complications. One must not, however, fall into the fallacious idea that operative techniques are radical, for often they are the only method of conserving life. Functional regeneration after transection of the spinal cord has been observed in the rat, the cat, and the dog. In our laboratories, we have transplanted spinal nerve roots, with functional return, in the dog and the primate. The possibilities of application of such techniques are presently under study. [Slide.] I show a gross anatomic picture of a plasma-clot suture of spinal nerve roots in a primate. Stimulation of the proximal end gave a peripheral muscular response, and the microscopic sections showed a liberal downgrowth of fibers to the muscle. It should be pointed out that the roentgenographic demonstration of laminar fractures and intervertebral disk protrusions is unreliable, making early and careful laminectomy the most conservative therapy possible in regard to the preservation of spinal-cord structure. Moreover, many poorly functioning neurogenic bladders are amenable to selective neurosurgical procedures.

IMPROVED TECHNIC FOR DIAGNOSING RINGWORM INFECTIONS AND MONILIASIS

A. M. Kligman, M.D., D. M. Pillsbury, M.D.,
and
H. Mescon, M.D., Philadelphia

Although superficial fungus infection of the skin is a common disease, it has been our experience that diagnosis of the condition is often made on the basis of inadequate evidence. Ringworm, especially of the feet, is a popular diagnosis among both physicians and laymen. The diagnosis is usually based on brief clinical inspection without resort to confirmatory laboratory procedures.

A false diagnosis of ringworm carries the hazard of exposing the patient to therapeutic attacks that at best may not be helpful, and at worst may be damaging. We have repeatedly had the opportunity to observe patients with various types of contact dermatitis who have received the wrong treatment, often with great harm to themselves, because of a clinical misdiagnosis of ringworm. On the other hand, the failure to make an accurate diagnosis, particularly in the more resistant cases such as ringworm of the nails, entirely precludes rational therapy.

Confirmation of a diagnosis of ringworm is afforded by two laboratory procedures: (1) culture of the organism; (2) microscopic demonstration of the fungus in tissue. Although isolation of the organism in culture is often helpful in prognosis, this procedure can scarcely be recommended to the busy general practitioner. Moreover, even when good laboratory facilities are available, attempts to isolate the organism are successful in only 40 to 60% of the microscopically proved cases of ringworm. Therefore, microscopic examination of skin scrapings is a more feasible and valuable diagnostic technique. The simplicity of this examination also recommends it.

The fungi causing superficial skin disease grow in the horny outermost stratum of the epidermis. They appear in this dead substratum in the form of branching threads or filaments (hyphae). They are considerably larger than bacteria. The organism that causes moniliasis (Candida albicans) shows yeastlike forms (budding cells) as well as hyphae. The microscopic detection of a filament or even a small fragment of a filament in a skin scraping is sufficient to establish a diagnosis of superficial fungus infection.

Up to the present time the potassium hydroxide preparation has been the accepted procedure for demonstrating fungi in the skin. This technique requires that the skin scrapings be mounted in a drop or two of 10% potassium hydroxide on a slide. Although the hydroxide solution serves to clear the tissue and thus increases the visual contrast of the fungus, the value of this method is nonetheless limited because the preparation is colorless. The differentiation of artifacts such as the "mosaic" fungus (not a fungus at all) is often difficult. Moreover, fungus elements are exasperatingly scarce in some specimens, and 15 to 20 minutes of close scrutiny by a skilled observer may be required to detect the organism in an unstained preparation.

In previous communications, the Hotchkiss-McManus stain has been recommended as a superior method of demonstrating fungi in tissue.[1] The two fundamental steps in this procedure are treatment of the skin scrapings on a slide with 1% periodic acid [2] followed by exposure to the Schiff reagent (decolorized basic fuchsin). The necessity of using the Schiff reagent limits the value of this technique for routine work because of the relative instability of the solution. Schiff reagent is not readily prepared and usually has to stand overnight before use. Arzac [3] has succeeded in modifying the Hotchkiss-McManus stain so that ordinary basic fuchsin solution is used instead of the Schiff reagent. This is advantageous because basic fuchsin solution is stable. Both the Hotchkiss-McManus technique and Arzac's modification are general stains for various substances belonging to the class of complex polysaccharides. These stains are in no sense specific for fungi. Our interests, however, have been confined to the adaptation of these procedures to the specific purpose of demonstrating fungi. In particular, the aim of the present study has been to develop a modification so simple as to make this procedure an available diagnostic tool for routine use. The method to be described may be readily employed in clinic and private practice wherever routine diagnostic laboratory procedures are being performed. Specifically, it has been

This study was aided by Army grant W-49-007-MD-473.

From the Department of Dermatology and Syphilology, University of Pennsylvania School of Medicine, D. M. Pillsbury, M.D., Director.

1. Kligman, A. M., and Mescon, H.: The Hotchkiss-McManus Stain for the Histopathologic Diagnosis of Fungus Diseases, Am. J. Clin. Path. **21**: 86, 1951; The Periodic Acid-Schiff Stain for the Demonstration of Fungi in Animal Tissue, J. Bact. **60**: 415, 1950.

2. Periodic acid is manufactured by the G. Frederick Smith Chemical Co., Columbus, O.

3. Arzac, J. P.: A Simple Histochemical Reaction for Aldehydes, Stain Technol. **25**: 187, 1950.

found very useful in the diagnosis of dermatophytosis of the feet, tinea corporis, tinea capitis, onychomycosis (ringworm of the nails), tinea versicolor and moniliasis.

METHOD

The method of collection of material is most important. Preferably, a drop or two of Mayer's glycerol albumin (purchasable from any supply house) is placed directly over the lesion. The lesion is then vigorously scraped with a blunt knife. The albumin causes the scrapings to stick to the knife, and also accomplishes the removal of the horny material in the form of macerated, thin shavings. It is essential that thick pieces be avoided. The macerated material on the knife is then transferred to a slide and rubbed over the surface so as to effect an even distribution. The albumin also enables adherence of the material to the slide during the staining procedure. Slides prepared in this way can be shipped by mail and stained without loss of brilliance weeks later, if necessary. Scrapings from nails may be collected in the same manner, although more vigorous scraping is required. Whenever possible in cases of onychomycosis, horny material under the nail should be collected. The likelihood of a positive result in onychomycosis is greatly improved by the collection of a copious amount of material since fungus elements may be very scarce.

On the other hand if the laboratory receives the material in the form of thick pieces of nail or the tops of vesicles, it is necessary to scrape these specimens with a sharp knife so as to procure a thin smear. In the latter case the slide should be prepared beforehand by smearing a drop of Mayer's glycerin-albumin over it. The thin scrapings are then rubbed over the slide as before.

In suspected cases of moniliasis of the mouth or vagina, the swab used to collect the sample is simply rubbed over an albuminized slide. The following procedures are best carried out in a series of Coplin staining jars that may be permanently set up for routine use:

1. Immerse the slide for one minute in 95% alcohol, immerse it for five minutes in a 5% aqueous solution of periodic acid.
2. Transfer it to the following solution for two minutes:

Basic fuchsin	0.1 gm.
95% ethyl alcohol	5 cc.
Water	95 cc.

(Dissolve the basic fuchsin in the alcohol and then add the water.)

3. Rinse briefly in tap water.
4. Immerse in the following solution for 10 min.:

Zinc hydrosulfite	1.0 gm.[4]
Tartaric acid	0.5 gm.
Tap water	100.0 ml.

This solution is stable for at least one month if it is kept in a closed jar, and can be used over and over again. It may be conveniently kept in a stoppered bottle and poured into a Coplin jar just before use, or a screw-cap type of Coplin jar may be used. Zinc hydrosulfite is a white powder and a fresh solution can be prepared in a few minutes. The freshly prepared solution contains finely dispersed sulfur which, however, does not interfere with immediate use. Within 24 hours the sulfur will have settled to the bottom, leaving a clear solution. Removal of the sulfur by filtration is not required. The solution is usable as long as it continues to have a strong smell of sulfur dioxide.

5. Rinse the slide briefly in water.
6. Dehydrate and mount. Immerse in 95% alcohol, absolute alcohol, xylene, and a final xylene solution, for one minute, in each, and mount in balsam or HSR[5] mounting medium. Preparations prepared in this fashion are permanent and may be filed. If semipermanent preparations are satisfactory, the specimen may be mounted in a drop or two of polyvinyl alcohol mounting medium immediately after step 6. This eliminates the necessity of dehydrating and clearing; however, the color of specimens mounted in polyvinyl alcohol begins to fade after a few days. The polyvinyl alcohol mounting medium can be prepared according to the directions given by Huber and Caplin.[6] If the specimen is to be examined the day of preparation or on the next day it may be mounted in ordinary glycerin directly after step 6. This is the simplest procedure if, as is usual, the slides are to be disposed of shortly after inspection. Mounting in glycerin is recommended for routine use since this eliminates the several steps required to dehydrate and clear the specimen.

Comparison of the Potassium Hydroxide Method with the Basic Fuchsin Staining Technique in Suspected Cases of Superficial Fungus Infections

Condition	No. of Patients Examined (in Suspected Cases)	No. of Positive Diagnoses from Stained Preparations	No. of Positive Diagnoses from KOH Preparations	No. of Positive Diagnoses from KOH Preparation but not in the Stained Specimens	No. of Positive Diagnoses from Stained Preparations but not from the Potassium Hydroxide Specimens
Ringworm of the glabrous skin and the feet	164	47	39	0	8
Fungus infection of the nail	22	13	9	1	5

RESULTS

The fungi are stained red. The horny tissue is either colorless if fairly thin, or light red if thick. Even in thick smears, however, there is sufficient contrast between the fungi and the keratin to afford ready detection of the fungus.

For the past six months this technique has been in routine use in the dermatology clinic of the Hospital of the University of Pennsylvania. As a basis of comparison, the potassium hydroxide method has been done in parallel on each specimen. The clear-cut superiority of the stained slides is demonstrated by the evidence presented in the Table. The advantage of this method lies not only in permitting a higher percentage of positive diagnoses but also in the brief time required to find the fungus in a positive smear. These advantages offset the time and effort required to stain the preparation. The staining method is, however, a much more complicated one than the potassium hydroxide procedure.

4. Zinc hydrosulfite may be obtained from the Virginia Smelting Co., West Norfolk, Va.

5. Harleco synthetic resin (HSR) is obtainable from the Hartman-Leddon Co., Philadelphia.

6. Huber, W. H., and Caplin, S. M.: Simple Plastic Mount for Permanent Preservation of Fungi and Small Arthropods, Arch. Dermat. & Syph. 56: 763 (Dec.) 1947.

COMMENT

It may be observed that there was only one instance (a case of onychomycosis) in which fungi were demonstrated by the potassium hydroxide method and not in the stained smear. Nonetheless, it is precisely in cases of fungus infection of the nail that the staining method has proved most valuable. Not infrequently, even when abundant material has been collected on several slides, only a single fungus fragment may be present. This fragment is readily missed in an unstained preparation. It should also be pointed out that in scrapings from cases of onychomycosis the fungus elements are often in a degenerated state so that they do not stain as brilliantly as the organisms found in glabrous skin lesions. One may observe from the Table that if the potassium hydroxide method alone had been used in cases of ringworm of the skin and feet, about 17% of the positive cases would have been missed.

The staining method has particular value in the diagnosis of moniliasis. We have been repeatedly surprised by the large quantity of organisms observed on the stained slide when the potassium hydroxide preparation of the same specimen showed a paucity of fungus elements. Brilliant preparations result from material collected in cases of moniliasis of the mucous membranes. The method should be particularly valuable to gynecologists for the detection of monilial vaginitis.

One should be aware that the skin supports as part of its normal flora a group of budding yeastlike fungi. These

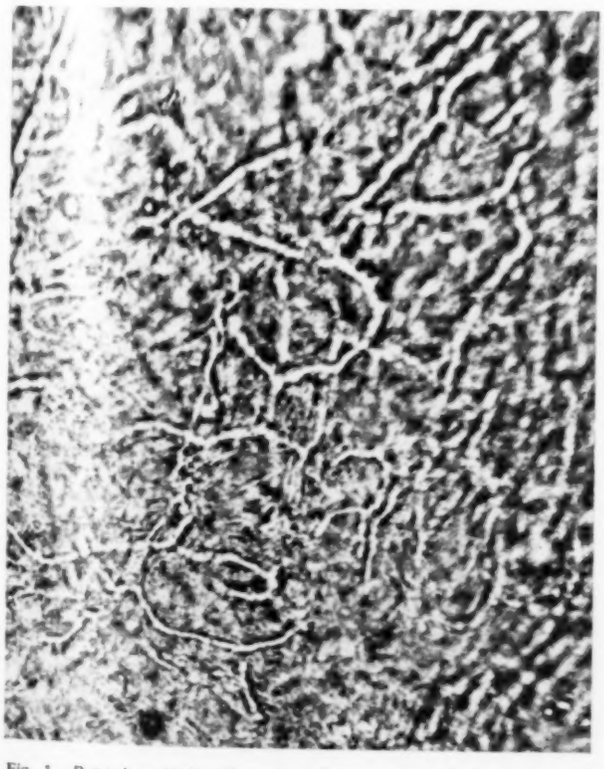


Fig. 1.—Potassium hydroxide mount from a case of ringworm of the skin. The fungus threads are poorly defined.

are mainly the so-called lipophilic fungi belonging to the genus Pityrosporum (including Pityrosporum ovale, the "bottle bacillus," falsely implicated as a cause of dandruff). These normally occurring organisms should not be confused with the organism causing moniliasis (C. albicans). The lipophilic fungi are much smaller, and exhibit only round or oval budding cells, never hyphal threads.

The fungus in cases of tinea versicolor is brilliantly demonstrated by this staining technique. However, the

Fig. 2.—Stained mount from the same case. The hyphae are strikingly visible.

fungi are ordinarily so abundant in this disease that the simpler potassium hydroxide method is usually satisfactory.

Another recently described method of staining fungi in skin scrapings with methylene blue has proved unsatisfactory in our hands.[7]

SUMMARY

1. A method is described of staining fungi in skin scrapings with basic fuchsin.

2. The method is superior to the potassium hydroxide technique, since a correct diagnosis can thus be made with much greater accuracy.

133 S. 36th St.

7. Gordon, M. A.: Rapid Permanent Staining and Mounting of Skin Scrapings and Hair, Arch. Dermat. & Syph. **63**: 343 (March) 1951.

Atom Bomb Injuries.—The prognosis of radiation injury is summarized as follows: (*a*) If vomiting occurs on the day of the bombing and is followed by diarrhea, prostration, continued vomiting, anorexia and fever, survival is improbable, and death will occur in a matter of days. (*b*) If vomiting occurs on the day of the bombing and is followed by an asymptomatic period of one to three weeks before appearance of the typical symptoms of radiation injury (purpura, epilation, ulcerations of the mucous membranes, and gastro-intestinal disturbances), survival is possible. (*c*) If there is no vomiting on the day of the bombing, survival is probable unless there are complicating factors such as burns, thermal injuries, traumatic injuries, or concomitant epidemics. Epidemics in a leukopenic population may be catastrophic.—Comdr. Eugene P. Cronkite, M.C., U.S.N., Radiation Injuries Produced by Atomic Bombs, *Radiology*, May, 1951.

RHEUMATIC NODULES IN TUBERCULOSIS

Antonio Valdés-Dapena, M.D.
and
Marie Valdés-Dapena, M.D., Philadelphia

While studying the hearts of patients who died from tuberculosis, not infrequently we have found cellular infiltrations in the myocardium indistinguishable from Aschoff bodies. In the English literature such lesions apparently have not been described. They are not mentioned in Rich's comprehensive contribution [1] or in any of the texts of pathology. In the United States only Gouley, Bellet, and McMillan (1933)[2] have observed "submiliary foci of epithelioid cells around small blood vessels" and "large and small nodules of endothelial and round cells" which they interpreted as "tuberculous granular infiltration" in six cases of tuberculosis.

As the occurrence of Aschoff bodies in tuberculosis seems to be of greatest importance, not only for the understanding of this disease but especially for that of rheumatic heart disease, we felt it desirable to report our observations and briefly discuss their significance.

MATERIAL

This is a study of the hearts of 63 patients who at autopsy were found to have tuberculous lesions. In 62 of these patients the tuberculous involvement was in the lungs, and in all it was the primary cause of death. In one tuberculosis was found primarily in the adrenals, and that was the primary cause of death.

Types of Tuberculosis in Sixty-Three Cases of Tuberculous Lesions

Type	No. of Cases
Extensive ulcerocaseous pulmonary tuberculosis	28
Same with miliary spread	2
Fibrocaseous pulmonary tuberculosis	17
Same with miliary spread	2
Fibronodular pulmonary tuberculosis	3
Minor pulmonary lesions with acute miliary spread	10
Adrenal tuberculosis	1
	63

On an average, four portions of myocardium were taken, usually one from the septum and the rest from the left and right ventricles. From these between four and 16 microscopic slides were made in each case and stained in the usual routine hematoxylin and eosin method. In none of these hearts was there any sign, grossly, of active rheumatic heart disease. All patients with healed rheumatic lesions or a history of rheumatic fever were excluded from this series.

The accompanying table indicates the types of tuberculosis found in our cases.

GROSS FINDINGS

Most of the hearts were under the average normal weight. The myocardium was usually pale and in many cases exhibited the consistency and color which generally lead to the diagnosis of cloudy swelling. Grossly there was no indication of any specific myocardial change that might correspond to the lesions encountered microscopically. Three hearts showed typical tuberculous pericarditis, and a few showed old pericardial fibrosis or adhesions.

MICROSCOPIC FINDINGS

Miliary tubercles were not found in any of the sections examined. In spite of the fact that many of them had extensive miliary spread and most of them presented miliary tubercles, at least in the spleen and liver, no tubercles have been found in the myocardium. This does not refer to our experience in this series alone.

Nontuberculous granulomatous lesions were found in 13 cases. These granulomas could be classified in three groups:

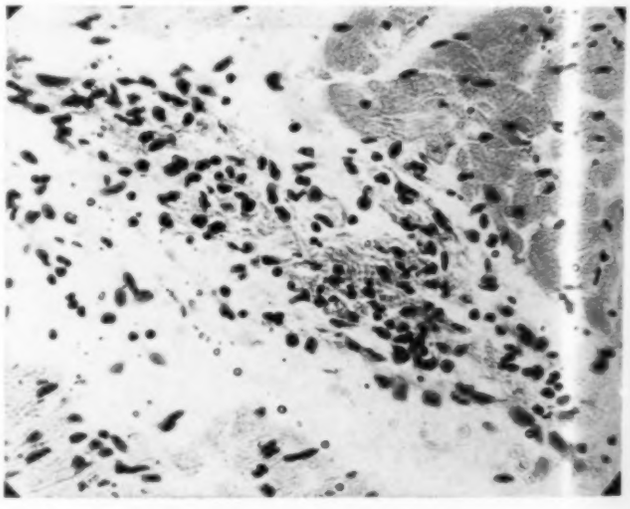


Fig. 1.—Typical young Aschoff bodies.

1. *Aschoff Bodies* (figs. 1 through 4).—Of these there were seven. All conformed to the criteria set for the identification of "rheumatic nodules." They were located in the interstitial spaces and were made up of collections of large spindle-shaped cells with a clear oval nucleus in which the chromatin tended to form a central irregular line oriented in the longitudinal sense (Anitschkow cells) and a sprinkling of "Aschoff cells" with mildly basophilic cytoplasm. The American Heart Association sets down the following pattern for Aschoff bodies [3]: A. Early Aschoff bodies (fig. 1)—Aschoff cells are conspicuous large cells with granular basophilic cytoplasm, prominent nucleus, vesicular nucleoplasm, and dense nuclear membrane; occasional polymorphonuclear leukocytes may be present, and surrounding collagen fibers are swollen and eosinophilic. B. Later Aschoff bodies (fig. 2 through 4)— Cells may become larger and multinucleated, and small lymphocytes and fibroblasts may appear.

Director of Laboratories, Graduate Hospital of the University of Pennsylvania; Assistant Professor of Pathology, The Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania; Consulting Pathologist, Fitzgerald-Mercy Hospital, Darby, Pa.; Assistant Visiting Pathologist, Philadelphia General Hospital (Dr. Antonio Valdés-Dapena). Director of Laboratories, Fitzgerald-Mercy Hospital, Darby, Pa.; Assistant Instructor in Pathology, The Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania, and Woman's Medical College of Pennsylvania; formerly Resident Pathologist, Philadelphia General Hospital (Dr. Marie Valdés-Dapena).

1. Rich, A.: Bull. Johns Hopkins Hosp. 75: 115, 1944.
2. Gouley, B. A.; Bellet, S., and McMillan, T. M.: Arch. Int. Med. 51: 244 (Feb.) 1933.
3. Criteria Committee of New York Heart Association: Nomenclature and Criteria for Diagnosis of Diseases of the Heart, New York, New York Tuberculosis and Health Association, 1940.

2. *Aschoff Bodylike Granulomas.*—Of these we had one. They represent perivascular infiltrations which are very suggestive of rheumatic nodules but are not entirely identical with the prescribed picture.

3. *Nondescript Granulomas.*—There were five of these. In this group were included aggregates of cells

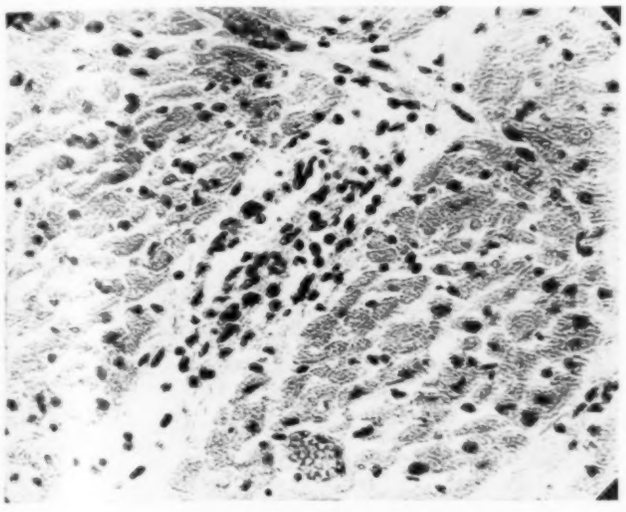


Fig. 2.—Typical adult Aschoff bodies.

which constituted definite and striking interstitial lesions but were easily could be segregated from the group of typical Aschoff bodies. They were made up of Anitschkow cells together with plasma cells or of large cells with prominent nuclei and reticular chromatin without Anitschkow cells. Although they were not typical Aschoff bodies, they certainly might be termed such; these, too, might be called rheumatic nodules.

4. Finally, diffuse cellular infiltrations, which were not granulomas, were found in four cases. Curiously, the four were quite distinctly different. One showed an intermingling of polymorphonuclear leukocytes and mono-

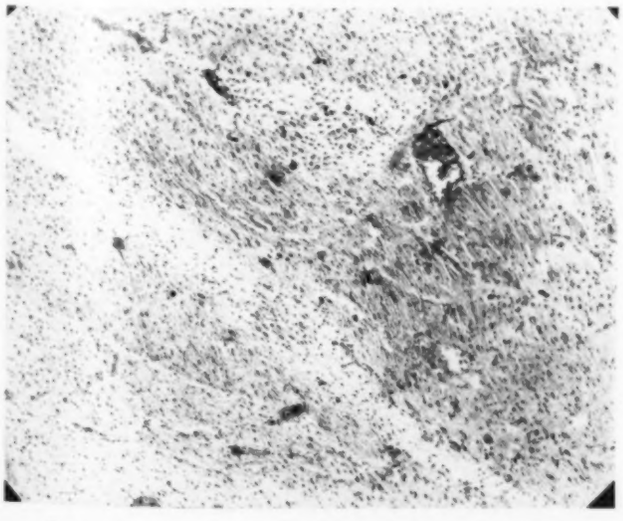


Fig. 3.—Typical adult Aschoff bodies in upper center portion.

cytes (fig. 8). In another case there was a fresh infiltration with polymorphonuclear leukocytes (fig. 7). Monocytes and lymphocytes were found in a third case, and the other showed a pure lymphocytic infiltration. These were taken to be a nonspecific change, although the question remains open as to whether they were early stages of a tuberculous lesion or whether they might have been associated in some way with the subsequent formation of granulomas. They were not coincident with the granulomas.

COMMENT

In reviewing the literature we found that Aschoff bodies and similar granulomas have been described fairly often not only in tuberculosis but also in other infectious diseases.[4] The interpretations of these offered by the different authors have been different. To date the issue seems far from settled. The specificity of the Aschoff bodies as a manifestation of rheumatic fever in the strictest sense is defended by many[5]; the nonspecificity of this lesion is maintained by others.[6] Finally, some have gone further and consider the Aschoff body, because it may be found in tuberculosis, as the connecting link between the two diseases.[4b]

The first point that must be discussed is whether the lesions we have found are identical with Aschoff's rheumatic nodule. Staunch defenders of the specificity theory have always maintained that similar lesions found in non-

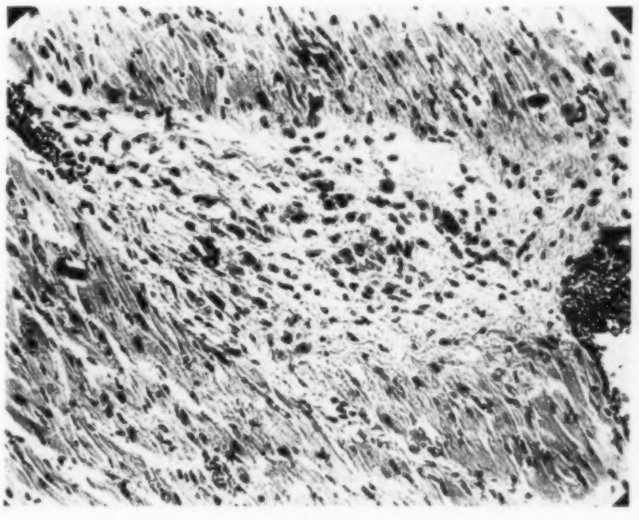


Fig. 4.—Same section as figure 3 under high power.

rheumatic patients did not look to them like Aschoff bodies. Soon after the latter were described, Lubarsch [4a] reported finding similar or identical structures in patients with scarlet fever. Fahr [5a] came to the defense of the specificity theory by stating that he could see definite differences between the true lesions encountered in rheumatic patients and the spurious ones occurring in scarlet fever. More recently, Stoeber [4c] repeated the observation, maintaining the distinction, and he even went over 18 cases of tuberculosis to answer the claims of those who had found granulomatous lesions in the latter disease. He found there, as he states, "no Aschoff bodies."

On the other hand, Masugi and associates [4b] on examining 215 hearts of tuberculous patients found 35 (16.3%) with interstitial cellular collections whose ap-

4. (*a*) Lubarsch: cited by Brockhausen, K.: Virchows Arch. f. Path. Anat. **274**: 302, 1930. (*b*) Masugi, M.; Murasawa, S.; Yä-Shu: ibid. **299**: 426, 1937. (*c*) Yamada, S.: Tr. Soc. Path. Japan **30**: 450, 1940. (*d*) Ozawa, M.: Tr. ibid. **28**: 230, 1938. (*e*) Stoeber, E.: Arch. f. Kinderh. **105**: 193, 1935.

5. (*a*) Fahr, T., cited by Masugi, Murasawa and Yä-Shu.[4b] (*b*) Stoeber.[4c]

6. Klinge, F.: Ergeb. d. allg. Path. u. path. Anat. **27**: 1, 1933.

pearance showed all the transitions from typical Aschoff bodies to structures very similar to miliary tubercles. Ozawa [4d] examined 187 hearts of patients dying of pulmonary tuberculosis. In 41 (21.9%) of these he found "granulomata." Yamada,[4c] in 350 hearts of tuberculous patients, found 39 (11.1%) with interstitial lesions, 2 of which were identical with Aschoff bodies, 14 of which were very similar, and 23 of which showed a tendency toward epithelioid tubercle formation. The same author studied 120 cases of various other diseases, including scarlet fever, "croupous pneumonia," glomerulonephritis, and others; 13 of these showed myocardial lesions similar to Aschoff bodies. Patients with carcinoma were free of such lesions.

Brockhausen [7] reported one case in which typical tubercles were found side by side with not only granulomas but also lesions resembling periarteritis nodosa. He described the granulomas as differing from Aschoff bodies in their loose texture and their profuse lymphocytic infiltration.

In our appraisal of the question of the histological specificity of the rheumatic nodule it may be well to bring

Fig. 5.—Typical small Aschoff bodies.

up the matter of whether every lesion found in the myocardium of unchallengeable cases of rheumatic fever conforms exactly to the criteria of morphology of an ideal Aschoff body. Perhaps the percentage of "perfect" Aschoff bodies in rheumatic hearts with myocardial changes is not much different from that found in nonrheumatic hearts showing granulomatous myocardial lesions, as, for example, in our group. It seems to us very likely that in examining sections from a heart with obvious gross rheumatic lesions, the observer might not be too exacting as to the standards used in labeling any granulomatous lesion found an Aschoff body.

Since a good many of the lesions found in our cases conformed in every detail to the strictest criteria, we feel that it is permissible to say that typical Aschoff bodies occur in the hearts of some tuberculous patients showing no indication of rheumatic fever, active or latent.

Let us consider now the significance of our observations. As expressed by Masugi [4b] they can be explained in one of three ways: 1. A rheumatic disease of the myocardium existed in these patients coincidentally with tuberculosis and without any other sign of rheumatic fever. 2. Rheumatic fever and tuberculosis are one and the same disease. 3. Aschoff bodies are the expression of a nonspecific tissue response to varied stimuli, probably of an allergic nature.

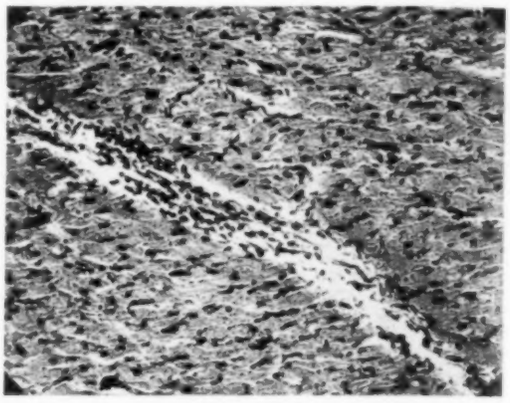


Fig. 6.—Typical small Aschoff bodies.

The first possibility remains theoretically tenable but seems highly improbable because the percentage of positive findings is far higher than would be warranted by the statistical probability of coincidence of the two diseases.

The second view has been held by various authors. Tuberculous rheumatism, as such, was first postulated by Poncet in 1902. Loewenstein's positive blood cultures for tubercle bacilli in cases of chronic and of acute polyarthritis strengthen this view. These observations were never satisfactorily confirmed, and the theory fell into disrepute. Recently, Masugi,[4b] on the histopathological findings, again postulated the relationship between the two diseases. He was impressed particularly by the gradation of myocardial lesions from the typical tubercle to the Aschoff body. With his co-workers he studied 24 rheumatic fever patients, all of them with endocarditis, and found that 11 of them had signs of tuberculosis, five of

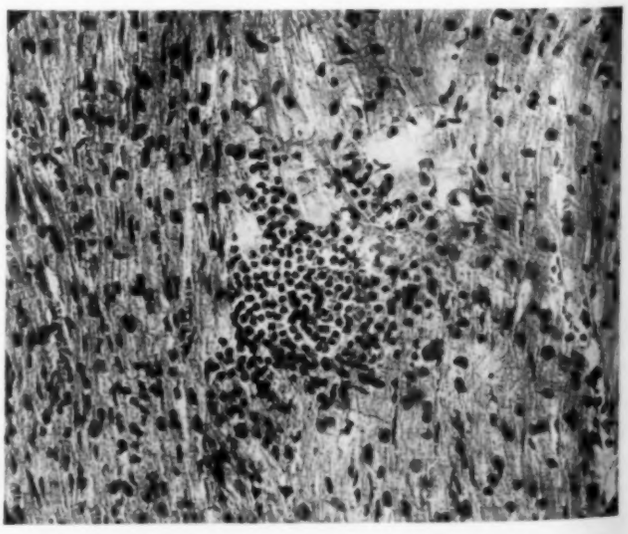


Fig. 7.—Interstitial myocarditis; fresh infiltration with polymorphonuclear leukocytes.

them with active lesions. Finally, Lewkowicz [8] has described an organism which he calls "tuberculo-coccoid" and designated it as the agent of a group of diseases

7. Brockhausen, K.: Virchows Arch. f. Path. Anat. **274**: 302, 1930.
8. Lewkowicz, K.: Beitr. z. klin. Tuberk. **92**: 680, 1939.

which he has classified as "inflammatory tuberculosis." Among these he would include rheumatic fever. This acid-fast "coccoid" is almost always intracellular, may be small enough to be filterable, and, according to that author, shows transitional stages toward the bacillary form. The same writer refers to the obtaining by Coronini of positive tubercle bacillus cultures from hearts of rheumatic patients.

The search for an etiological agent of rheumatic fever has long been directed toward the acid-fast organisms. It is well known that no convincing evidence has ever been produced in this sense. While the chapter is not closed, at this point it seems highly problematical that rheumatic fever may be a manifestation of tuberculosis.

It remains as the most suggestive hypothesis that the Aschoff body and the morphologically related granulomas may be an allergic response to varied allergens, among which the tubercle bacillus is a prominent one.

There has been experimental evidence to show that interstitial granulomas may be produced in the heart by

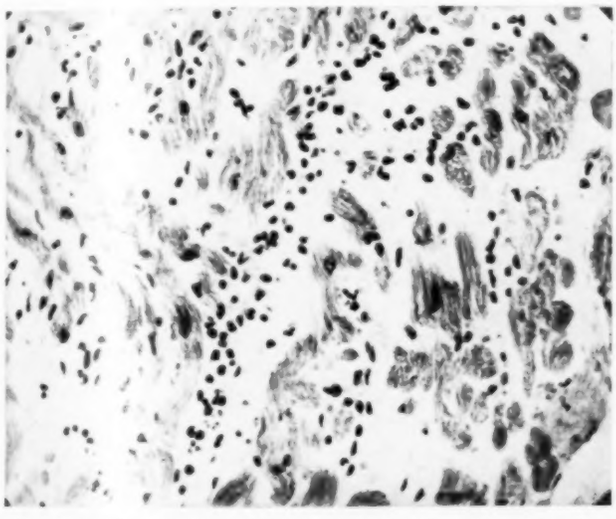


Fig. 8.—Interstitial myocarditis; intermingled polymorphonuclear leukocytes and monocytes.

different antigens. This was first brought into prominence by the work of Klinge,[6] using protein sensitization and reinjection. He observed all types of granulomas up to typical Aschoff bodies. His conclusion was that these lesions were not specific. Later, Rich and his group [1] produced similar lesions almost at will in their experiments dealing with sensitization to foreign proteins. Yamada [4c] sensitized rabbits to the tubercle bacillus and, after a second inoculation, was able to demonstrate in the heart and muscles micronodular lesions closely resembling the Aschoff body. Saphir [9] speaks of granulomatous myocarditis due to hypersensitivity to chemicals (arsenic and others).

Allergy admittedly plays an important role in the course of pulmonary tuberculosis. The relationship between the allergic status of the tuberculous patient and the development of interstitial rheumatoid granulomas is not quite clear. In Ozawa's series there was a marked predominance of exudative tuberculosis, widely regarded as a manifestation of increased allergic response. Masugi found no significant distribution but, believing that the granulomas were a form of tuberculosis, came to the conclusion that they represent a type of reaction in which the tissue overcomes the invading organism to the point of destroying it entirely. That explained, in his mind, why bacilli were never found in these lesions.

In our material typical Aschoff bodies occurred largely in cases of exudative tuberculosis. We, therefore, feel that it is logical to associate these lesions with a reaction of the type observed by Klinge and Rich due to hypersensitivity to various allergens, in this instance the tubercle bacillus.

SUMMARY AND CONCLUSIONS

The hearts of 63 tuberculous patients were examined. Thirteen revealed granulomatous lesions in the myocardium. Seven of these lesions were identical with Aschoff bodies. There were no gross anatomical signs of latent, healed, or active rheumatic heart disease in any of these patients. In the light of present knowledge, our observation, or interpretation, of these lesions supports the conclusions of those authors who believe that rheumatic nodules are allergic phenomena due to various allergens rather than the specific response to a specific agent.

19th and Lombard St. (Dr. A. Valdés-Dapena).

9. Saphir, O.: Arch. Path. **32**: 1000 (Dec.) 1941.

Leukemia.—In this dread disease there are numerous manifestations which are recorded as isolated facts in textbooks of medicine without any emphasis on the conclusions which can be drawn from them and without any attempt to bring them into a perspective where they can be used to discuss the nature of the disease. The spectacular and absorbingly interesting hematological changes have received the most minute attention, and this alone has tended to overshadow the morbid anatomy and basic pathology and also to divert attention from certain clinical facts which may provide the clue to the elucidation of the cause and the devising of appropriate treatment. . . . We are thoroughly familiar with two types of the disease which we designate as leukemic or aleukemic, according to the state of the peripheral blood, but these do not differ greatly in clinical features save that in aleukemic cases the lymph nodes, the spleen, and the liver may not be so grossly enlarged at the outset. This fact, that the disease may be leukemic or aleukemic, is accepted as a commonplace, a mere variation in manifestations. It has not given rise to argument and serious discussion. Yet the fact that two types exist suggests the derangement of two different processes which, on rational grounds, should be physiologically interlocked. I refer first to the process of maturation and, secondly, to the process of release into the circulation. . . . In frank leukemia, there appears to be inhibition or retardation of maturation in whole or in part, combined with lack of control over release, since vast numbers of cells, including primitive ones, flood the circulation. In the aleukemic disease lack of maturation is a prominent feature, but the release mechanism is largely intact in that the numerous primitive cells in the marrow may not reach the circulation except in small numbers.

These facts make it abundantly clear that we know little or nothing of the physiology of leucopoiesis, and I am convinced that we shall not understand leukemia until some of these basic physiological facts have been determined. If half the time and energy which have been devoted to devising and exploiting empirical remedies for the symptomatic treatment of the disease, reducing the leucocyte count, had been expended on basic physiology and pathology, we might well be much nearer to rational treatment.—Sir Lionel Whitby, Whither Clinical Pathology? Trends and Opportunities, *Journal of Clinical Pathology*, May, 1951.

ACUTE GLOMERULONEPHRITIS FOLLOWING ADMINISTRATION OF RHUS TOXIN

REPORT OF A FATAL AND A NEAR FATAL CASE

Bertram Shaffer, M.D., Carrol F. Burgoon, M.D., Philadelphia
and
James H. Gosman, M.D., Indianapolis

Administration of extracts of poison ivy for active treatment of the acute dermatitis caused by this plant has been widely practiced. It is the purpose of this report to call attention to a variety of reactions, particularly serious kidney damage, which may occur following this treatment.

The plants which commonly produce this type of contact dermatitis belong to the family Anacardiaceae, and are Rhus Toxicodendron (poison ivy), Rhus diversiloba (poison oak), and Rhus Vernix (poison sumac).

Local and general reactions have been reported in patients given prophylactic or active treatment, orally or by injection, with extracts of these substances.[1] Intramuscular injections for prophylaxis against future attacks may cause local reactions at the site of injection, as well as constitutional and cutaneous reactions.[2] Oral administration, in an attempt at hyposensitization, produces various types of localized and generalized eruptions,[3] stupor, convulsions, and hyperpyrexia.[4] In patients with acute dermatitis to whom the extract was given intramuscularly as treatment, systemic reactions,[5] marked exacerbation and prolongation of the existing dermatitis [6] and hemorrhagic skin reactions [7] have been noted. Rytand [8] described seven patients with severe kidney damage following poison oak dermatitis, three of whom died.

We have recently observed a fatal reaction and a near-fatal reaction was brought to the attention of one of us (C. F. B.), both reactions occurring in patients in whom intramuscular injections of Rhus toxin were administered for the active treatment of the dermatitis. In these cases the dermatitis was exacerbated and, following a short latent period, the clinical symptoms and signs of acute glomerulonephritis developed. The use of this material for active treatment is widespread, and, for this reason, we feel these severe complications are worth reporting.

The Council on Pharmacy and Chemistry of the American Medical Association has warned of the potential dangers of these preparations.[9] It has pointed out that, in spite of numerous reports since 1925, the efficacy of these extracts administered parenterally for prophylaxis of Rhus dermatitis has never been established, and that while the oral desensitization method using very large doses of these substances is often effective, this method is cumbersome, time consuming, unpredictable, and fraught with discomfort and danger to the patient, and the extract should be administered only by an expert. The Council, furthermore, stated that the reports dealing with the treatment of acute dermatitis with these extracts are few in number and completely unconvincing as to their beneficial effects. Since from a theoretical point of view their use is unjustifiable, and since exacerbations of dermatitis have been known to result from this form of treatment, the report of the Council denounced the use of these preparations in the phylactic treatment of acute dermatitis. More recently Hoagland [10] in an excellently controlled study has thrown further doubt on the benefit to be derived from prophylactic injection of Rhus extracts.

REPORT OF CASES

CASE 1.—J. M. R., a white man aged 61, was admitted to Skin and Cancer Hospital on Sept. 25, 1947. Two weeks preceding admission, pruritus, edema, and erythema of the face, hands, and arms developed a few hours after he weeded his garden. A series of four daily intramuscular Rhus toxin antigen injections was started the following day. On September 17, following the fourth injection, his dermatitis became markedly worse. Previous medical history revealed nothing of note except a severe case of Rhus dermatitis ten years previously.

Physical examination revealed a generalized scaling erythroderma with large purulent bullae on the feet and hands, a widespread folliculopustular eruption on the trunk, and pronounced edema of the entire face, hands, arms, and legs up to the knees. Temperature on admission was 100.2 F.; pulse, 80; respirations, 30, and the blood pressure was 150/90. The remainder of the physical examination was essentially normal. Laboratory studies of the blood on admission showed a hemoglobin value of 83% and 9,000 leukocytes with normal differential. Urinalysis revealed a specific gravity of 1.025, a trace of albumin, occasional white blood cells and a few hyaline casts. The bacteriologic culture of bullous fluid was negative for Staphylococcus albus and Staphylococcus aureus by coagulase test.

From the Skin and Cancer Hospital of Philadelphia, and the Department of Dermatology and Syphilology, Medical School of the University of Pennsylvania, Dr. Donald M. Pillsbury, Director.

1. (*a*) Alderson, H. E., and Pruett, H. J.: Poison Oak Dermatitis (A Specific Treatment), California State J. Med. **19**: 188, 1921. (*b*) Howell, J. B.: Evolution of Intramuscular Injection of Specific Extracts in Treatment of Acute Poison Ivy Dermatitis, Ann. Allergy **5**: 219, 1947. (*c*) Shelmire, B.: Hyposensitization to Poison Ivy, Arch. Dermat. & Syph. **44**: 983 (Dec.) 1941. (*d*) Gold, H., and Masucci, P.: Oral Prophylaxis Against Poison Ivy, J. Allergy **13**: 606, 1942. (*e*) Goldman, L.: The Reactions Following the Therapeutic Use of Poison Ivy Antigen for Poison Ivy Dermatitis, J. Med. **20**: 294, 1939. (*f*) Zisserman, L., and Birch, L.: The Prophylaxis and Treatment of Poison Ivy Dermatitis with an Extract of Rhus Toxicodendron, J. Allergy **10**: 596, 1939. (*g*) Shelmire, B.: Cutaneous and Systemic Reactions Observed During Oral Poison Ivy Therapy, ibid. **12**: 252, 1941. (*h*) Lowenberg, H.: Poisoning Due to Tincture of Rhus Toxicodendron, J. A. M. A. **135**: 91 (Sept. 13) 1947. (*i*) Caulfield, A. H. W.: Prevention of Poison Ivy Dermatitis by Intramuscular Injections of "Rholigen" (Rhus Toxoleo-Antigen), Canad. M. A. J. **37**: 18, 1937. (*j*) Sompayrac, L. M.: Negative Results of Rhus Antigen in Treatment of Experimental Ivy Poisoning, Am. J. M. Sc. **195**: 361, 1938. (*k*) Corson, E. F.: The Value of the Toxin of Rhus Toxicodendron and Rhus Venenata, Correspondence, J. A. M. A. **81**: 59 (July 7) 1923. (*l*) Templeton, H. J.: Untoward Reactions Following Toxin Treatment for Dermatitis Venenata, Arch. Dermat. & Syph. **20**: 83 (July) 1929.

2. Zisserman,[1f] Caulfield,[1i] and Sompayrac.[1j]
3. Shelmire,[1c] Gold,[1d] and Shelmire.[1g]
4. Lowenberg.[1h]
5. Anderson and Pruett.[1a]
6. Howell,[1b] Goldman,[1e] and Corson.[1k]
7. Goldman.[1e]
8. Rytand, D. A.: Fatal Anemia, the Nephritic Syndrome and Glomerular Nephritis as Sequels of the Dermatitis of Poison Oak, Am. J. Med. **5**: 548, 1948.
9. Stevens, F. A.: Status of Poison Ivy Extracts, report of the Council on Pharmacy and Chemistry, J. A. M. A. **127**: 912 (April 7) 1945.
10. Hoagland, R. J.: Prophylaxis of Rhus Toxicodendron Dermatitis, New England J. Med. **242**: 130, 1950.

Treatment consisted of debridement of the hands and feet, Burow's solution compresses, forced fluids, tripelennamine (pyribenzamine®) hydrochloride, and boric acid irrigation to the eyes.

By October 4, the condition of the skin had improved, and the pruritus, scaling, and edema of the face and hands had diminished. However, there was pronounced edema of the lower extremities up to the knees. On October 10, the patient complained of shortness of breath, urinary frequency, nausea, headache, and mild diarrhea. Physical examination revealed edema involving the legs, hips, and abdominal wall, and moist rales at the bases of both lungs. The blood pressure rose to 186/110. Laboratory findings were blood urea nitrogen, 43 mg. per 100 cc.; urinary output, 3,600 cc.; urine, a specific gravity of 1.030, a heavy cloud of albumin, occasional red and white blood cells, and a moderate number of fine and coarsely granular hyaline casts. The blood cell count showed only moderate leukocytosis. On the following day, the pruritus had increased, and erythema and urticaria appeared over the face and shoulders. In four days the urinary output fell to 700 cc. A phenolsulfonphthalein test

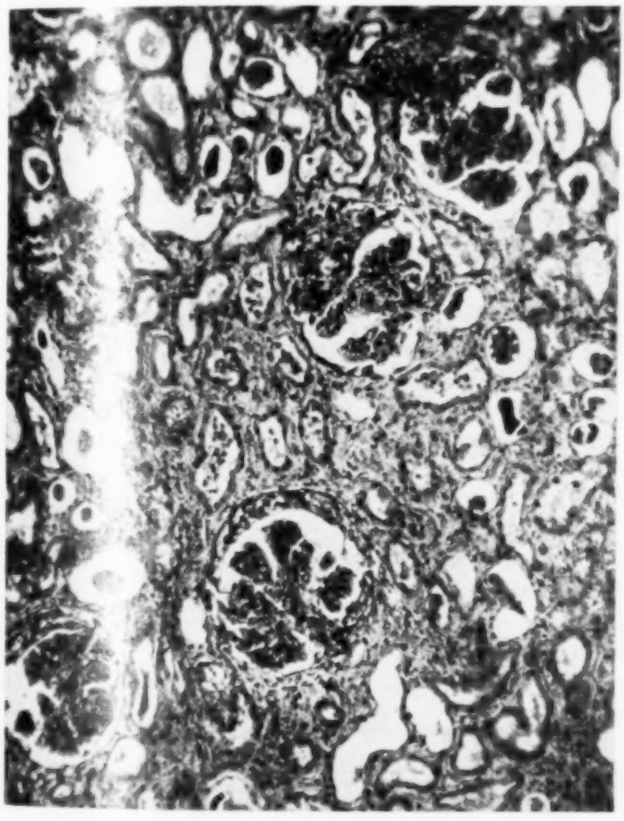


Fig. 1.—Microscopic section of kidney in case 1 showing the features of acute glomerulonephritis. These included swelling, bloodlessness, and coarsening of the glomerular tufts. Increase in nuclei with proliferation of the glomerular and capsular epithelium and adhesions are evident. Many tubules are distended, elongated, and contain casts. The lining cells show flattening and degeneration. The interstitial tissue is the site of edema and cellular infiltration.

showed 25% excretion in the first hour and 18% in the second. A Mosenthal test demonstrated limited urine concentration of from 1.015 to 1.017 in specific gravity. Serum albumin was 3.9 mg. per 100 cc. and globulin 2.3 mg. per 100 cc. The edema increased, blood pressure rose to 221/118, and the patient developed fleeting periods of mental confusion. The blood count showed a 5% eosinophilia. The patient became anuric, blood urea nitrogen rose to 105 mg. per 100 cc., and blood pressure reached a point beyond manometer readings. He died on October 21, twenty-six days after admission. A blood count done the day before death showed 9% eosinophilia.

Autopsy was limited to the kidneys. On opening the abdomen there was no evidence of peritonitis, and all organs appeared normal. Grossly, the kidneys cut with increased resistance; the capsule stripped easily leaving a relatively smooth, slightly granular surface. Petechial hemorrhages and small areas of necrosis were seen.

On microscopic examination (made by Dr. Warren F. Sheldon) the glomeruli showed the changes typical of acute glomerulonephritis. They were diffusely involved by an inflammatory process characterized by moderate swelling, nearly complete bloodlessness, and subdivision of the glomerular mass into several coarse club-like parts. The number of nuclei was greatly increased. This increase was due to proliferation of both capsular and endothelial lining cells and to infiltration by moderate numbers of leukocytes. Of the few capillaries that were open, many appeared to be plugged by agglutinated masses of red blood cells or similar-staining hyaline thrombi. The glomerular capsular epithelial lining showed active proliferation with many adhesions to the tuft. Well-formed "crescents" were common.

The tubules showed slight focal atrophy. Many were distended by casts of brightly eosinophilic hyaline material (probably protein). These casts extended the whole length of the nephron from the glomerulus to the tip of the pyramid but were larger in the loop of Henle and below. The tubular epithelium was often flattened. The proximal tubular epithelium stained irregularly and contained vacuoles. Many cells contained masses of coarse intracytoplasmic, brightly eosinophilic, hyaline droplets (probably protein). The interstitial tissue was moderately increased in amount, due largely to edema and mild leukocytic infiltration, mostly lymphocytes, plasma cells, monocytes, with variable numbers of polymorphonuclear leukocytes. The small arteries occasionally seemed swollen and contained leukocytes in and near the wall.

Case 2.—A. M., a white woman aged 42, was admitted to the Emergency Hospital in Doylestown, Pa., on May 16, 1947. Two weeks prior to admission she had contact with poison ivy, and within approximately 24 hr. typical acute contact dermatitis involving the hands, face, and forearms had developed. The patient received Rhus tox antigen intramuscularly at daily intervals for four days. After the first two injections the dermatitis became worse and generalized, but following the fourth injection the dermatitis appeared to be improving. Three days after the last injection the patient had a chill, temperature became elevated, and headache, anorexia, and nausea developed.

The patient was admitted to the hospital with temperature 100 F., pulse 110, respirations 26, and blood pressure 116/80. During the subsequent period of hospitalization, anorexia increased, and nausea and vomiting, restlessness, and edema of the face developed, blood pressure increased (180/100), oliguria developed (300 cc. in 72 hours after admission), blood urea nitrogen rose (56 to 65 mg. per 100 cc.) and red blood cells and albumin appeared in catheterized specimens of urine. On the 10th day of hospitalization with increasing urinary excretion, there was rapid clinical improvement. The patient was discharged on the 23rd day of hospitalization. The blood pressure and urine returned to normal within a period of six months and have remained normal to the present time.

COMMENT

The evidence that these patients had kidney disease is conclusive. It seems probable that the kidney disease was due to sensitivity to Rhus toxin.

The pronounced sensitivity of the patients to Rhus toxin was indicated by the history of a previous severe dermatitis venenata in case 1 and the exacerbation of the present dermatitis following injections of the Rhus extract in both cases. That the kidney complication was a sensitization phenomenon is suggested by the latent

11. Rytand, D. A.; Burnha, D. W., and Cox, A. M.: Periarteritis Nodosa Following the Dermatitis of Poison Oak and of Primrose, Stanford M. Bull. 6: 319, 1948.

12. Hill, C. A.; Mattacotti, V., and Graham, W. D.: The Toxic Principle of Poison Ivy, J. Am. Chem. Soc. 54: 2756, 1932.

13. Mason, H., and Schwartz, L.: The Toxic Principles of Poison Ivy, J. Am. Chem. Soc. 64: 3058, 1942.

14. Landsteiner, K., and Jacobs, J.: Studies on the Sensitization of Animals with Simple Chemical Compounds, J. Exper. Med. 64: 625, 1936.

period between the last injection of Rhus toxin and the first sign of kidney disease. In case 1 there was an associated increasing eosinophilia. The renal disease in both cases was an acute, rapidly advancing process rather than a chronic degenerative one, as evidenced by the fulminating clinical signs with concomitant laboratory changes.

Rytand [9] reported the appearance of renal disturbances in seven patients three days to two months after the onset of poison oak contact dermatitis. Three of these patients died, and of these, two had been given Rhus toxin for the active treatment of their dermatitis. Rytand and others [11] have also reported two cases of periarteritis nodosa with a renal involvement, following contact type plant dermatitis.

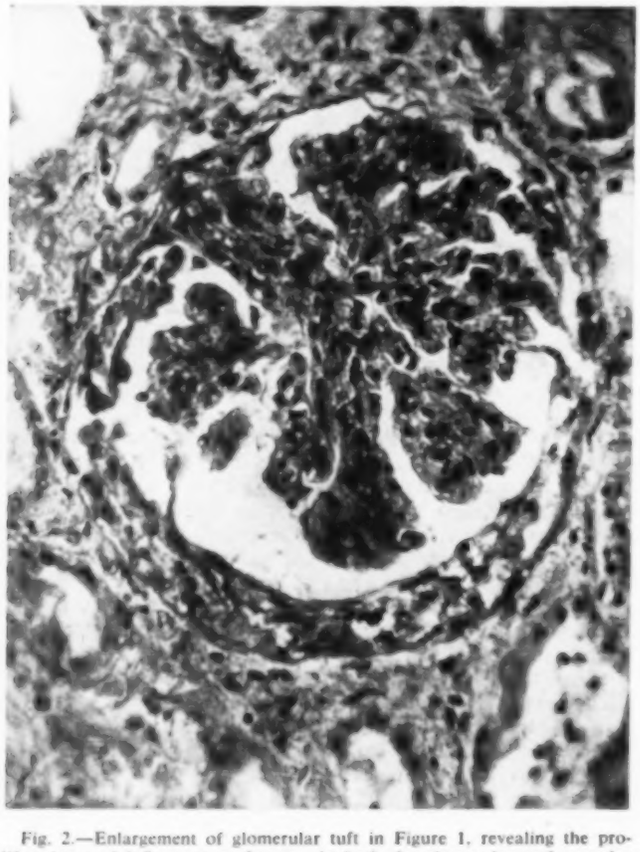


Fig. 2.—Enlargement of glomerular tuft in Figure 1, revealing the proliferation and inflammatory features in both the glomerular and capsular epithelium.

The chemical nature of the Rhus toxin has been extensively studied for the past 50 years.[12] The active principle is apparently a toxic oil with three active components and several innocuous concomitants as demonstrated by fractional distillation.[13] Hill and others [12] reported that at least one of the toxic principles was a catechol compound (urushiol).

Such relatively simple compounds may induce both epidermal sensitization and anaphylactic shock by acting as hapten allergens.[14] This process probably occurs through conjugation with the host's own protein.[15] It is thought that the active fraction of Rhus is a polyhydric compound which is oxidized to a quinone configuration before reacting with native protein to form a fully antigenic compound.[15a,b] A complete antigen of this type may produce sensitization of the entire organism as well as local epidermal phenomenon.[16] Proof of systemic sensitization with Rhus is demonstrated by recent studies in experimental animals in which sensitivity to poison ivy was passively transferred with serum as well as with cellular extracts of spleen.[16a]

Rich [17] has demonstrated that simple chemical compounds such as sulfonamides may induce an allergic reaction in the kidney manifested by glomerulonephritis or periarteritis nodosa. It is suggested that Rhus toxin may act as a hapten allergen in the same manner and also produce glomerulonephritis.

SUMMARY AND CONCLUSIONS

Two cases of acute glomerulonephritis occurring one week and four weeks after injections of Rhus toxin for the treatment of patients with dermatitis venenata due to poison ivy are reported.

In the fatal case, the associated eosinophilia, urticaria, and histological changes in the kidney indicate that the patient's death was a result of an allergic phenomenon.

Rhus toxin is a potentially dangerous hapten-type allergen which may induce systemic sensitization.

The administration of Rhus extracts is of no demonstrated value in the active treatment of plant dermatitis. Because of their great potential danger, it is felt that Rhus extracts should not be used in these cases.

1825 Pine St.

15. (*a*) Keil, H.; Wasserman, D., and Dawson, C. R.: The Relation of Chemical Structures in Catechal Compounds and Derivatives to Poison Ivy Hypersensitiveness in Man as Shown by the Patch Test, J. Exper. Med. **80**: 275, 1944. (*b*) Gell, P. G. H.; Harrington, C. R., and Rivers, R. P.: The Antigenic Function of Simple Chemical Compounds: Production of Precipitins in Rabbits, Brit. J. Exper. Path. **27**: 267, 1946. (*c*) Landsteiner, K.: Specificity of Serologic Reactions, ed. 2, Cambridge, Mass., Harvard University Press, 1945.

16. (*a*) Chase, M. V.: The Cellular Transfer of Cutaneous Hypersensitivity, J. Bact. **51**: 643, 1946. (*b*) Crepea, S. B., and Cooke, R. A.: Study of Mechanism of Dermatitis Venenata in Guinea Pig with Demonstrations of Skin Sensitizing Antibody by Transfer, J. Allergy **19**: 353, 1948. (*c*) Landsteiner, K., and Chase, M. W.: Experiment of Transfer of Cutaneous Sensitivity to Simple Compounds, Proc. Soc. Exper. Biol. & Med. **49**: 688, 1942.

17. Rich, A. R.: Hypersensitivity in Disease with Especial Reference to Periarteritis Nodosa, Rheumatic Fever, Disseminated Lupus Erythematosus and Rheumatoid Arthritis, Harvey Lect. (1946-1947) **42**: 106-147, 1947.

Sphincter-Saving Resections of the Rectum.—Undoubtedly the most exciting development in the surgery of rectal cancer in recent years has been the attempt to revive sphincter-saving excisions in the radical treatment of this disease. Of course, it has always been the ambition of right-thinking surgeons to be able to excise malignant growths of the rectum without having to sacrifice the wonderful anal sphincter apparatus, but earlier experiences at the turn of the century with operations of this type had not been very happy and after a brief period of popularity they fell out of favor in this country and America, though still employed in Germany and Austria.

The present re-awakening of interest has been due to the important researches on the spread of rectal cancer by Cuthbert Dukes (1940) and Heinrich Westhues (1934). They have provided solid pathological grounds for believing that sphincter preservation is compatible with the requirements of radical surgery for most growths in the upper half of the rectum or rectosigmoid. Whether this is in fact so can only be decided by an extended trial in actual practice and that is now being undertaken in many centers in the United States and in Britain. —J. C. Goligher, Ch. M. Edin., F.R.C.S., Hunterian Lecture delivered at the Royal College of Surgeons of England, March 13, 1951, *Annals of the Royal College of Surgeons of England*, June, 1951.

CHRONIC VITAMIN A POISONING

REPORT OF A CASE

George Bair, M.D., New York

Hypervitaminosis A is a syndrome first described by Josephs in 1944.[1] Subsequently, there have been 13 additional cases reported.[2] Observers have noted the following characteristic manifestations of the entity: external cortical thickenings of the affected bones, pain and swelling over the long bones, irritability and fretfulness, and increased vitamin A concentration in the blood.

REPORT OF CASE

B. Z., a 28-month-old white child, was first seen by me on April 15, 1950, after he had been ill at home for two and one-half weeks. His main complaints were painful swellings of the left foot, right forearm, and temporal regions. He also complained of severe itching of the back and arms. At the onset, although limping, the child was able to get around, but within a few days the pain became so severe that he refused even to attempt to walk. Penicillin and aureomycin were administered during the first two days of the illness, but were discontinued because he became progressively worse.

Past History.—The child had been a full-term, normal-delivery infant weighing 6 lb. 7 oz. (2.9 kg.) at birth. Five days post partum his mother died of virus pneumonia, so that he was brought up by grandparents. His feeding history was unusual in several respects. Since he rejected solids for the most part, his food was taken strained or mashed. He craved butter and ate large quantities of it. In addition, he showed a preference for milk, cheese, eggs, liver, carrots, tomatoes, and sweet potatoes. His appetite had been good until the onset of symptoms, after which he rejected all food. The vitamin intake was supposed to be 20 drops of percomorph liver oil daily. However, when the diagnosis became evident, requestioning disclosed that because of an error a considerably larger amount of oil had been given.

Fig. 1.—Left foot, showing swelling in region of fifth metatarsal.

Seven weeks before the onset of symptoms, the child complained of itching in the back of his neck. During the following weeks the pruritus became more intense and spread down the back and arms. This was so troublesome that a doctor who was consulted thought it was an allergic condition.

Physical Examination.—Examination revealed a well-developed, well-nourished boy who appeared sick and in pain. The child seemed to have a stiff neck when sitting up. He was fretful and irritable. His face was puffy; the lips, in contrast, were dry and fissured. Thin serous fluid ran from the nose. Bilateral temporal swellings, larger on the left, were visible and palpable. A fusiform swelling covered the fifth left metatarsal. The dorsa of both feet were edematous, and the right forearm was swollen.

All swellings were hard and tender. Only one area, the outer aspect of the fifth left metatarsal, was hot and bluish in color. The entire body, even those parts which were not swollen, was tender to the touch.

The tonsils were enlarged.

There was no palpable enlargement of spleen or liver. No abnormal masses were felt in the abdomen.

At no time during the illness did the temperature rise over 100 F.

Hemoglobin value was 79%; the red blood cell count was 4,900,000; the white blood cell count was 10,200; platelets 240,000; neutrophils: nonsegmented 6%, segmented 39%; eosinophils 2%, lymphocytes 45%, monocytes 7%, plasma cells 1%; hematocrit reading was 35.3; icterus index, two units; sedimentation rate (Westergren), 56 mm. in one hour (normal is up to 15 mm. in one hour). The findings in the urine were normal.

Blood vitamin A level on April 18, 1950, was 1040 I. U. (normal 50-150 I. U.).

Fig. 2.—Right ulna, showing cortical thickening in the middle third of the shaft.

X-ray examination completed on April 15, 1950, revealed the following abnormalities:

Left Radius: Normal except for slight swelling of the soft tissues adjacent to the distal lateral aspect of the shaft.

Right Ulna: Smooth, homogenous, moderately dense external cortical thickening in the middle third of the shaft. The margins of this hyperostosis were smooth and merged imperceptibly with the marginal cortex. There was no evidence of destruction. Distinct soft tissue swelling was seen contiguous to the cortical thickening.

Dr. John Caffey assisted in the preparation of this paper.

Department of Pediatrics, New York Medical College, Flower and Fifth Avenue Hospitals.

1. Josephs, H. W.: Hypervitaminosis A and Carotinemia, Am. J. Dis. Child. **67**: 33 (Jan.) 1944.

2. Toomey, J. A., and Morissette, R. A.: Hypervitaminosis A, Am. J. Dis. Child. **73**: 473 (April) 1947. Rothman, P. E., and Leon, E. E.: Hypervitaminosis A, Radiology **51**: 368, 1948. Dickey, L. B., and Bradley, E. J.: Hypervitaminosis A: Case Report, Stanford M. Bull. **6**: 345, 1948. Fried, C. T., and Grand, M. J. H.: Hypervitaminosis A, Am. J. Dis. Child. **79**: 475 (March) 1950. Caffey, J.: Chronic Poisoning Due to Excess of Vitamin A, Pediatrics **5**: 672, 1950.

Right Femur: Faint cortical thickening along the medial aspect of the middle third.

Right Fibula: Slight hyperostosis in the midshaft laterally.

Left Tibia: Cortical hyperostosis along the lateral and anterior aspects of the proximal end of the shaft. Adjacent soft tissue was swollen.

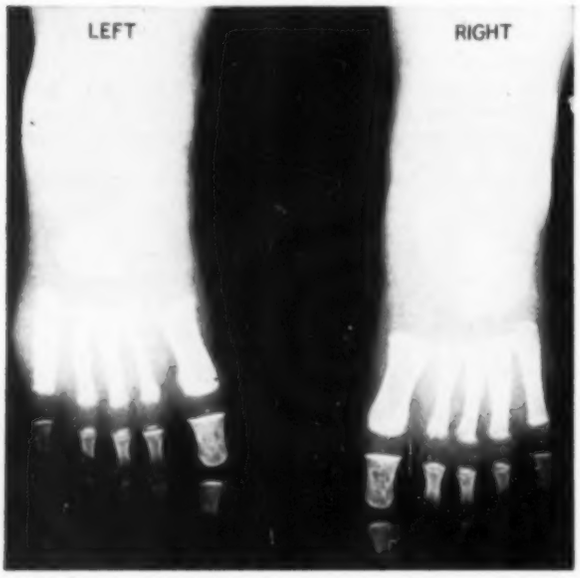


Fig. 3.—Metatarsal regions, both feet, showing lesions and soft tissue swelling over left fifth metatarsal.

Left Fifth Metatarsal: Moderately extensive cortical hyperostosis along the entire shaft. Considerable soft tissue swelling was present in this region.

New bone formation was also seen in the left third and fourth metatarsals and fourth right metatarsal.

Skull: Distinct periosteal new bone formation, less dense than the bones of calvarium, homogenous in character, and similar to hyperostosis present in the long bones. The largest patch of cranial hyperostosis was on the undersurface of the occipital bone extending to and on the left side of the foramen magnum. Smaller, more discrete areas of denser hyperostosis were present in each temporal region, and were more marked on the left side.

Fig. 4.—Skull, showing large patch of hyperostosis on undersurface of occipital bone.

Subsequent Course.—All vitamin supplements and excessive amounts of butter were eliminated from the diet. Within three days the child was able to walk, even though the metatarsal swelling had become more pronounced. The child appeared happy and seemed to be greatly improved. One month later, the metatarsal swelling was practically gone. The swellings of the forehead were still present, but were no longer painful or tender. In roentgen films made at the same time, all the hyperostoses except those in the skull had disappeared. Blood vitamin A level was 750 I. U.

COMMENT

Through a misunderstanding on the part of the grandmother, a teaspoonful of percomorph liver oil was given instead of 20 drops. Thus the child received in excess of 4 gm., or 240,000 units, of vitamin A daily during a period of at least three months. Prolonged continuous administration seems to be necessary before symptoms appear in children. Because of this, the administration for long periods of large doses of vitamin A in the treatment of skin diseases would seem to be a potentially dangerous procedure.

Although 14 cases have been reported, only two others showed swelling in the head. Neither of these cases showed as marked periosteal involvement as the one described above. The location of new bone formation on the undersurface of the occipital bone has never been reported previously. After one month, x-ray of the skull still revealed marked hypertostosis. Apparently new bone formation in this area persists longer than in other affected bones. Bony proliferation and high vitamin A levels were present for some time after the patient was otherwise normal.

Fig. 5.—Skull, showing bilateral temporal hyperostoses.

SUMMARY

A case of hypervitaminosis A with the typical findings and an unusual cranial bone involvement is presented.

Because of the dangers of overdosage, caution is advised in the administration of vitamin A as a standard procedure in the feeding of healthy infants.

The prognosis in recognized cases is excellent after stoppage of excess vitamin A.

123 E. 83rd St.

SPLENIC ASPIRATION

CLINICAL AND HEMATOLOGICAL CONSIDERATIONS BASED ON OBSERVATIONS IN ONE HUNDRED FIVE CASES

Maurice Morrison, M.D., A. A. Samwick, M.D., Joshua Rubinstein, M.D., Henry Morrison, M.D.
and
Leo Loewe, M.D., Brooklyn

An authoritative monograph by Emile Weil,[1] entitled "La ponction de la rate," marked the beginning of definitive findings in normal and pathological hematological conditions. This was followed by Moeschlin's splendid monograph,[2] which brought the subject up to date and served to stimulate others in furthering the study of spleen aspiration. Influenced by these researches, it was our intention to make a diagnostic study of spleen aspiration in hematological material that presented itself to us in hospital, clinic, and office. The scope of this contribution is limited to our own observations, since the literature has been adequately reviewed by Block and Jacobson.[3]

The time-honored examination of the peripheral blood, coupled with an adequate clinical investigation, sufficed to make possible the diagnosis of most hematological entities. In this manner, disorders of the red blood cells, white blood cells, and platelets were readily apparent. Anemias, erythrocytosis, agranulocytosis, leukocytosis, lymphocytosis, thrombocytopenia, and leukemia could thus, to a great extent, be readily resolved.

However, cryptic anemias, osteosclerosis, myelophthisic anemias, myelomas, Gaucher's disease, Niemann-Pick disease, and spent polycythemias were recognized with difficulty, mostly by implication. With the advent of bone-marrow aspiration, the solution to the problem was closer at hand.

As time went on, an impasse was reached in the diagnosis of extramedullary hematopoiesis, such as obtains in spent polycythemias and osteosclerotic anemias due to various causes. It was also difficult to differentiate between spent polycythemias and myelogenous leukemias. As a result, this led, oftentimes, to the erroneous conclusion that polycythemias resulted in myelogenous leukemias.

Also, it was taxing, many times, to resolve the causes of the various splenomegalies. Could we always be sure of an instance of Gaucher's disease which was limited to the spleen and escaped the bone marrow? Was it previously possible, before death, to postulate a diagnosis of lymphosarcoma of the spleen? How sure were we of the diagnosis of the various hemolytic anemias associated with splenomegaly? Thus, it became apparent that more knowledge concerning the hematological mechanisms was indispensable. It happens that the solution of the problem was not too far off. Moeschlin's [2] brilliant treatise on the subject was very stimulating, although Emile Weil [1] preceded this work and established the foundation for all future researches in spleen hemopathology.

METHOD OF SPLEEN ASPIRATION

Procedure.—The apparatus required are a 20-gauge needle, a dry syringe, and an alcohol sponge; no anesthesia is necessary. The operator stands at left side of patient and "shakes hands" with the spleen. The patient is told to stop breathing. The operator enters the spleen area close to the costal margin at the midclavicular line. He should aspirate rapidly, withdrawing the syringe and needle promptly. Then he should make a smear of aspirate (usually one drop of material).

The total time of procedure is from five to 10 sec.

As here noted, the procedure is innocuous. We attribute this element of safety to the fact that we limited ourselves only to spleens large enough to permit the abdominal approach, and did not use the thoracic approach sometimes employed by others. We never, to our knowledge, encountered the complication of puncturing the gastrointestinal tract. We believe this to be owing to the fact that a large spleen normally depresses the abdominal viscera in its vicinity. Also, bleeding tendencies were avoided in these large spleen cases. No extra preparation was required before a splenic aspiration. An enema might well be given as an extra precaution, but we never found it necessary. If aspiration did not yield sanguinous fluid, we never hesitated to repeat the procedure at once.

In one instance clear fluid which demonstrated pancreatic amylase was obtained. The mass in the left upper quadrant was not spleen, but later turned out to be a pancreatic cyst.

The approach here is mainly hematological, so that the unit of diagnosis was the cell rather than the tissue, thus delimiting the field between the hematologist and pathologist. The objective sought for in this contribution was adjunctive, not substitutive. Thus, an opportunity for earlier diagnosis, during life, could be achieved. The necropsy still remained the *sine qua non* for definitive, unequivocal diagnosis.

Splenectomy and necropsy serve to confirm the findings of spleen aspiration. This was found true in nine splenectomies and two necropsies resorted to in this study. Furthermore, 19 of these patients had lymph-node

Aided by a grant of funds from the Jacques Loewe Research Foundation, New York City.

From the Department of Hematology and the Department of Medicine, the Jewish Hospital of Brooklyn.

Exhibits of method by Drs. Maurice Morrison, A. A. Samwick, Joshua Rubenstein, and Leo Loewe: Spleen and Lymph Node Aspirations in Hematology, International Congress of Hematology, Cambridge, England, August, 1950; Spleen and Lymph Node Aspirations in Hematology, American Society of Clinical Pathologists, Chicago, October, 1950; Splenic Aspiration and Extra-Medullary Hematopoiesis: The Question of Splenectomy, Association of American Military Surgeons, New York, November, 1950.

1. Weil, P.: Isch-Wal, P., and Perlés, S.: La ponction de la rate, Paris, Masson & Cie, 1936.

2. Moeschlin, S.: Die Milzpunktion, Basel, Benno Schwabe, 1947.

3. Block, M., and Jacobson, L. O.: Splenic Puncture, J. A. M. A. 142: 641 (March 4) 1950.

aspirations; in two patients the conventional surgical lymph-node biopsy was done.

The following tabulation shows the distribution of conditions, based on clinical and hematological observations, in 105 cases of splenic aspiration.

Leukemia	
Eosinophilic	1
Acute myeloblastic	7
Chronic myelocytic	7
Chronic lymphatic	16
Lymphosarcoma cell	1
Lymphosarcoma	15
Hodgkin's disease	3
Osteosclerotic anemia	9
Polycythemia vera	7
Hemolytic anemia	3
Congenital hemolytic icterus	3
Banti's syndrome	3
Passive congestion of spleen	3
Cirrhosis of liver	3
Lymphnodulitis	3
Gaucher's disease	2
Giant lymphfollicular hyperplasia	2
Lipoid dystrophy	1
Gastrointestinal bleeding (postgastrectomy)	1
Hemangioma of spleen	1
Subacute bacterial endocarditis	1
Splenic vein thrombosis	1
Cooley's anemia	2
Hepatitis	1
Infection	1
Cardiac failure	1
No blood dyscrasia	6
Congenital telangiectasia	1
Total	105

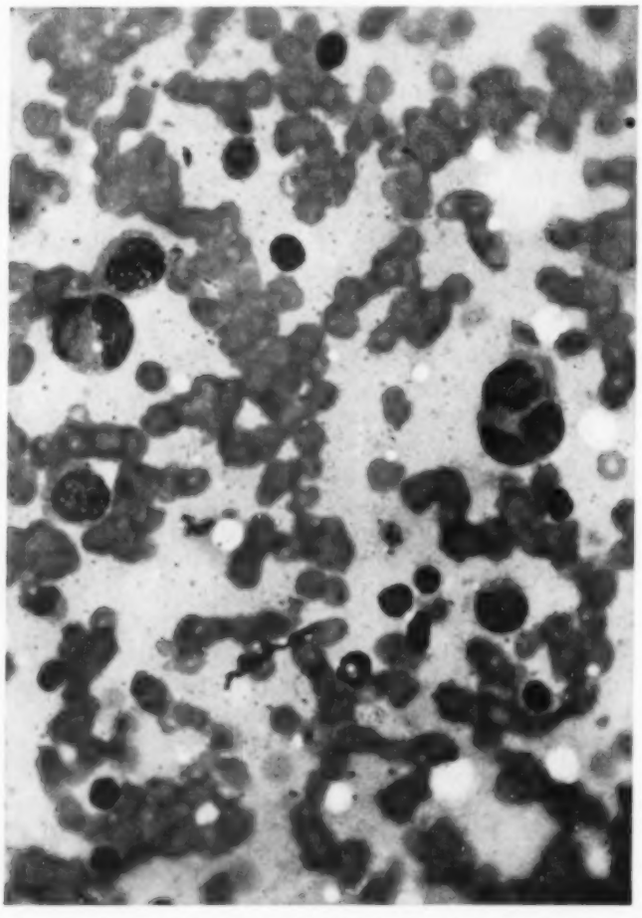


Fig. 1.—Spleen aspiration—Hodgkin's disease (Case L. C.). Monocytoid forms of Reed-Sternberg cells may be seen. Lymph-node aspiration was negative at this time.

The diagnosis in all cases was made by exposing the patients involved, whenever possible, to a battery of procedures as follows: (1) peripheral blood studies; (2) bone-marrow studies; (3) spleen aspiration; (4) lymph-node aspiration (where possible); (5) lymph-node biopsy (where possible); (6) pathological study of spleen after splenectomy, and (7) necropsy.

The types of cells noted above (Table 1) were found in this study and are but briefly described. Through the experience gained in this series of cases and a similar

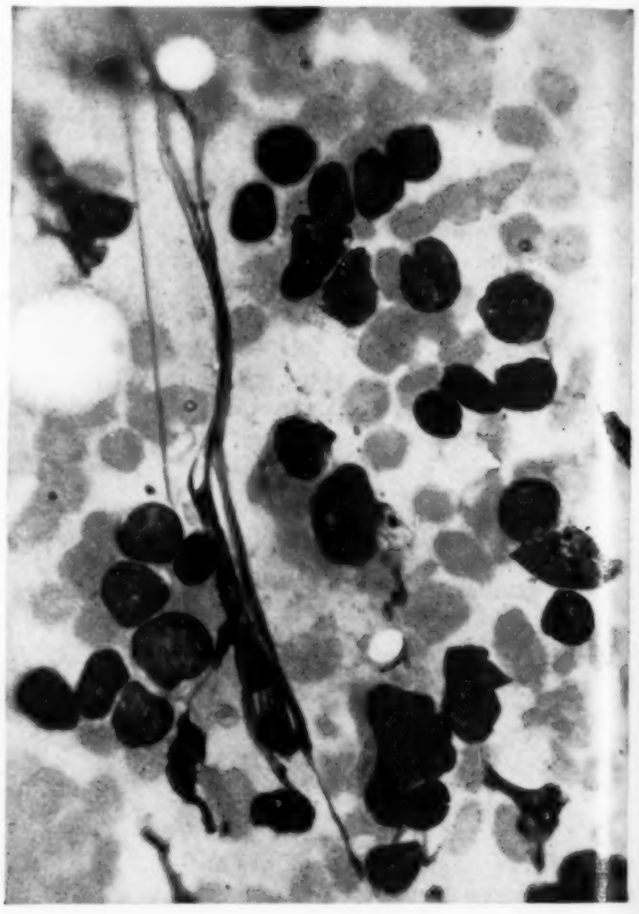


Fig. 2.—Lymph-node aspiration—lymphosarcoma (Case M. Y.). Large cell elements, scant cytoplasm, and absence of nucleoli can be seen. Type of cell above shown is the same as that found in spleen aspiration.

opportunity gained in viewing these cells in a number of cases with lymph-node aspiration (making a total of 206 experiences), we were able to orient ourselves adequately with the cytomorphological characteristics of these elements. After this study, we felt confident in setting down tentative criteria for the diagnosis of splenic aspirations in the different conditions.

Criteria (cytomorphological) for the diagnosis of splenic aspirations have been briefly outlined in the previous table (Table 2). As will be noted, the following conditions have been characterized: (1) Hodgkin's disease, (2) lymphosarcoma, (3) lymphatic leukemia, (4) myelogenous leukemia, (5) giant lymphfollicular hyperplasia, (6) presence of extramedullary hematopoiesis, (7) absence of extramedullary hematopoiesis, and (8) Gaucher's disease.

REPORT OF CASES

Hodgkin's disease (three cases).—The unit cell is the Reed-Sternberg cell. The presence of an increase in monocytoid cells is suggestive (Fig. 1).

Patient L. C., a woman aged 56, presented pallor, enlarged nodes in the axillary and inguinal regions, a mass in the right upper quadrant, liver enlarged 1 fingerbreadth and spleen enlarged 2 to 3 fingerbreadths below the costal margin. On examination, the peripheral blood showed a hemoglobin value of 73%, 4,200,000 red blood cells per cubic millimeter, 7,400 white blood cells, with a differential count of 74% polymorphonuclear leukocytes, 23% lymphocytes, and 3% monocytes, and 3 + platelets.

Bone-marrow aspiration revealed a G:E ratio of 75:25, and 25% myelocytes, 10% metamyelocytes, 10% staff cells, and 55% polymorphonuclear leukocytes, with 3+ megakaryocytes.

Lymph-node aspiration showed 90% small and large lymphocytes and 10% polymorphonuclear leukocytes, with no Reed-Sternberg cells. Splenic aspiration revealed 20% polymorphonuclear leukocytes and 80% small and large lymphocytes, with 2 + Reed-Sternberg cells, 1+ monocytoid cells, 1+ macrophage cells, and 1 + reticulum cells.

Comment.—This case throws a glimpse at an interesting problem in spleen and lymph-node aspirations. An earlier lymph-node aspiration did not reveal definitive evidence of Sternberg-Reed cells, whereas a spleen aspiration done at the same time disclosed their presence. At a later time, a conventional surgical biopsy was positive for Hodgkin's disease. This emphasizes the point that the definitive findings of Hodgkin's disease not only vary in their onset, from lymph node to spleen, but also

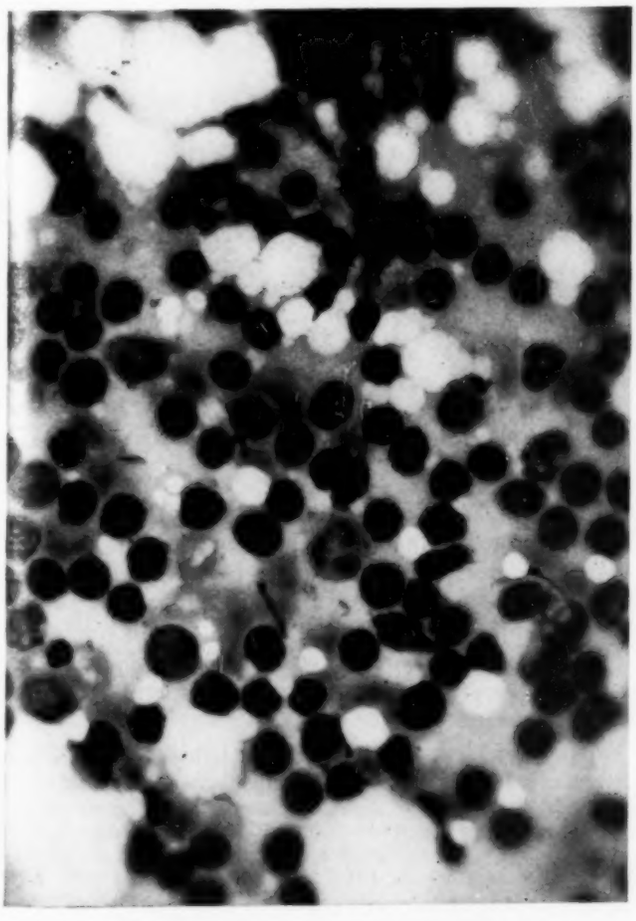


Fig. 3.—Spleen aspiration—chronic lymphatic leukemia (Case A. G.). Grumelée cell (typical mosaic or checkerboard or cartwheel appearance of nucleoplasm) can be seen.

from one lymph node to another. This confirms the previously known nature of Hodgkin's involvement. In other words, one may state categorically that negative findings resulting from examination of a lymph node do not rule out the possibility of Hodgkin's disease in a given case. It is possible that the evidence may be present in another site or may make its appearance later on at the same site (Fig. 1).

Lymphosarcoma (15 cases).—The unit cell is the lymphosarcoma cell. It is usually the size of a large

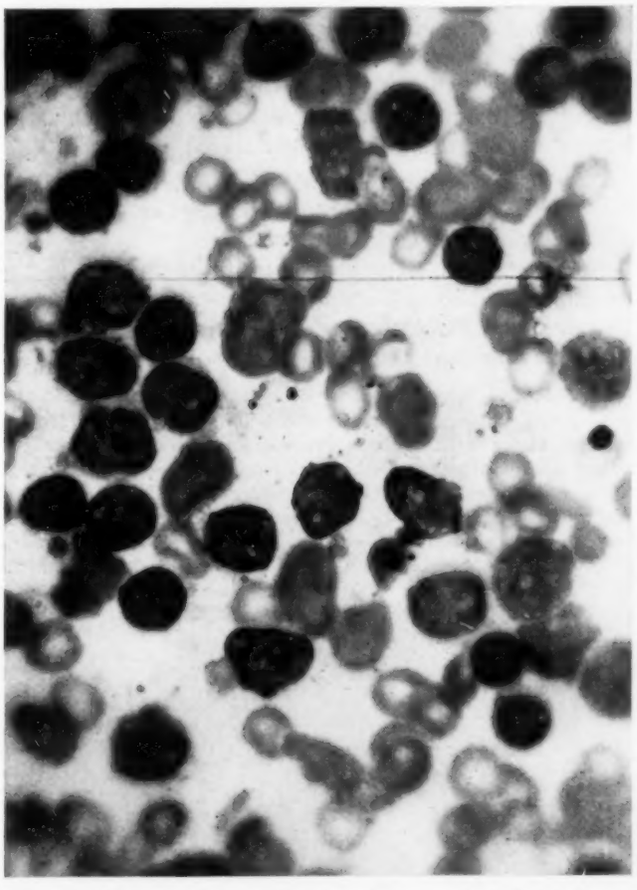


Fig. 4.—Spleen aspiration—acute myelogenous leukemia (Case J. L.). Myeloblasts and smudges may be seen.

lymphocyte with scant cytoplasm and no nucleoloi. This cell is well depicted in the lymph node of case M. Y.

Patient E. L., a man aged 57, presented marked pallor and weakness. The spleen was 3 to 4 fingerbreadths and the liver 2 to 3 fingerbreadths below the costal margin. Peripheral blood studies showed a hemoglobin value of 45% with 3,000,000 red blood cells, a white blood cell differential count of 72% polymorphonuclear leukocytes, 24% lymphocytes, and 4% monocytes, and 3 + platelets.

Bone-marrow aspiration revealed a G:E ratio of 20:80 and an L:E ratio of 75:25 and 25% myelocytes, 15% metamyelocytes, 20% staff cells, and 40% polymorphonuclear leukocytes.

Splenic aspiration showed 3 + small leukocytes; no lymphoblasts, Grumelée cells, or Reed-Sternberg cells, and many lymphosarcoma cells.

Comment.—Clinically, this case brought up for consideration various possibilities: (1) lymphocytic leukemia, (2) myelogenous leukemia, (3) Hodgkin's disease, (4) giant lymphfollicular hyperplasia, (5) lymphosarcoma.

Lymphatic leukemia was dismissed because of the lack of lymphocytosis in the peripheral study. Myelogenous leukemia was dismissed because of the absence of a left shift in the peripheral blood, bone marrow, and spleen. Hodgkin's disease was ruled out of consideration

because of the absence of lymph-node enlargement and the absence of Sternberg-Reed cells in the spleen. Giant lymphfollicular hyperplasia was ruled out because of the absence of lymph-node enlargement, but here the question of lymphosarcoma loomed large, and the diagnosis was favored because of the presence of lymphosarcoma cells. However, it must be confessed that one cannot be dogmatic in these instances just on clinical grounds. The pathological diagnosis is still of paramount importance in distinguishing between the two. The rapid deterioration of the patient both clinically and hematologically favored the diagnosis of lymphosarcoma.

Lymphatic Leukemia (16 cases).—Chronic Lymphatic Leukemia: The unit cell is the Grumelée cell (Fig. 3). It has a typical checkerboard appearance.

Acute Lymphatic Leukemia: Here the unit cell is the lymphoblast. This cell is usually endowed with nucleoli. This point is very helpful in contradistinction to their absence in lymphosarcoma.

Patient A. G., a woman aged 62, was admitted with moderate pallor, and purpura of the lower extremities. She presented enlarged nodes in the axilliary, inguinal and cervical regions. The spleen was enlarged to from 3 to 4 finger breadths below the costal margin and the liver was enlarged to 2 finger breadths below the costal margin. Peripheral blood studies showed a hemoglobin value of 67% with 3,480,000 red blood cells, 576,000 white blood cells, 300,000 platelets, 10% lymphoblasts,

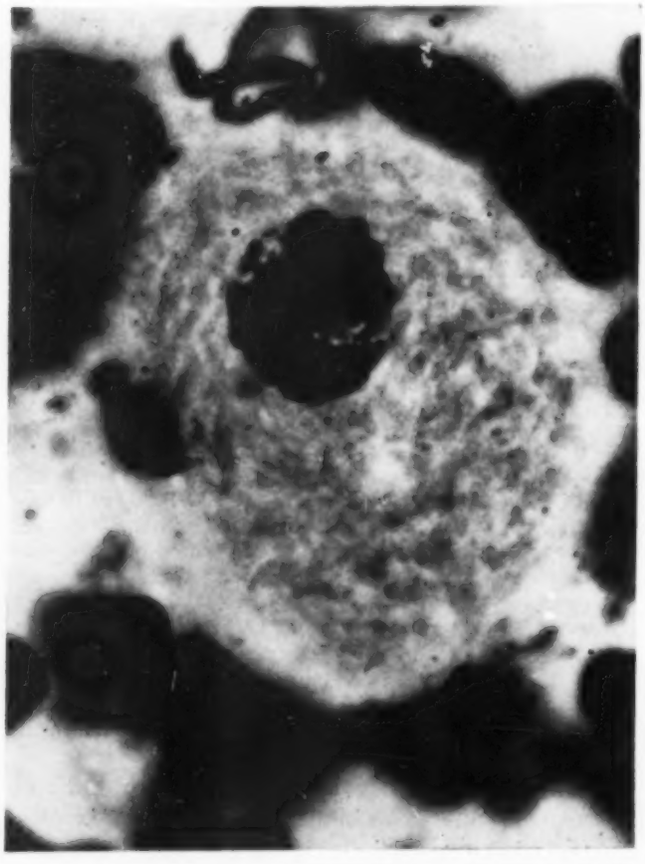


Fig. 5.—Spleen aspiration—Gaucher's disease (Case B. L.). Detailed study of cell can be noted. Here cytoplasmic structure is fibrillary as contrasted to the foam-like cytoplasm of the Niemann-Pick cell.

83% lymphocytes, and 7% polymorphonuclear leukocytes. Bone-marrow aspiration showed a G:E ratio of 95:5; G:L ratio of 15:85, and 3 + megakaryocytes, and 3 + smudge cells.

Lymph-node aspiration revealed 10% small lymphocytes, 80% Grumelée cells, and 10% lymphoblasts.

Splenic aspiration revealed 5% lymphoblasts and 95% Grumelée cells.

Comment.—The splenic aspiration did not reveal any information not already noted in the peripheral blood or lymph-node aspiration studies. Suffice it to say that lymphoblasts made their appearance in this case in all

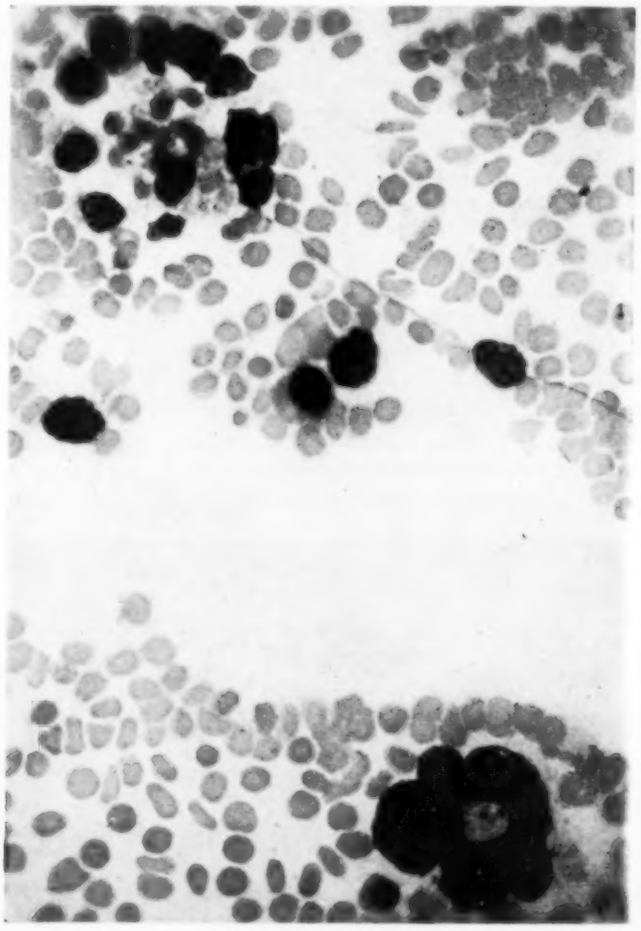


Fig. 6.—Spleen aspiration—spent polycythemia (Case L. G.). Large cluster of nucleated red blood cells above and megakaryocyte below can be seen.

three media. This case is revealing in that it sheds light on the parallelism that occurs in these tissues, very much unlike that noted, for instance, in Hodgkin's disease, in which the degree of involvement is so variable in one site as compared to another.

Myelogenous Leukemia (seven cases).—The unit cell is the myelocyte in the chronic form and the myeloblast in the acute form (Fig. 4).

Patient A. B., a woman aged 50, was admitted with pallor and fever and presented extreme adenopathy, ascites, spleen enlarged 4 +, and liver enlarged 3 +. Studies on the peripheral blood showed a hemoglobin value of 66%, 3,600,000 red blood cells, 160,000 white blood cells, with a differential count of 5% myeloblasts, 60% myelocytes, 10% metamyelocytes, and 20% staff cells. Bone-marrow aspiration revealed 20% myeloblasts, 30% myelocytes, 10% metamyelocytes, 20% staff cells and 20% polymorphonuclear leukocytes, and no megakaryocytes (none on smear). The lymph-node aspiration and the splenic aspiration showed myeloblastosis (myeloblasts and myelocytes).

Comment.—The peripheral blood and bone-marrow, lymph-node, and splenic aspirations revealed essentially the same findings. This sheds light on the parallelism already noted in the case of lymphatic leukemia. Diag-

nostically, therefore, the spleen aspiration here serves a small purpose.

Giant Lymphfollicular Hyperplasia (two cases).—The picture is the same as that noted in lymphosarcoma.

Gaucher's Disease (two cases).—A case is presented as follows:

Patient B. L., a man aged 32, presented pallor, subicteric tint to the sclerae, and conjunctival pingueculae. The spleen was enlarged 4 to 5 fingerbreadths below the costal margin, and the liver extended 3 fingerbreadths below the costal margin. There were a few cervical nodes present. The splenomegaly was noted 20 years previously when the patient was aged 12 years, and the diagnosis was made then.

On study, the peripheral blood showed a hemoglobin value of 80%, and 5,000,000 red blood cells, 6,000 white blood cells, with a differential count of 68% polymorphonuclear leukocytes, 2% eosinophils, 27% lymphocytes, and 3% monocytes, and 100,000 platelets.

Bone-marrow aspiration revealed a G:E ratio of 60:40 and many Gaucher cells. Splenic aspiration showed many Gaucher cells (Fig. 5).

TABLE 1.—*Description of Cell Types Noted in Spleen Aspirates in this Study*

Cell Type	Frequency	Occurrence	Description
Small lymphocyte	85%	Normal	Same as in peripheral blood
Large lymphocyte	15%	Normal	Same as in peripheral blood
Reticulum cell	Occas.	.....	Large nucleus (2 to 3 × size of small lymphocyte) surrounded by irregular cytoplasmic processes
Syncytial cell	Occas.	.....	Groups of reticulum cells in masses with common bluish cytoplasmic background
Grumelée cell (Fig. 3)	Many	Lymph. leuk.	Lymphoid elements with checkerboard nucleus
Lymphoblasts	Occas.	Normal inflammations	Lymphoid elements with nucleoli
I. M. cells	Many	Infectious mononucleosis	Large lymphoid elements with indented nucleus and bluish cytoplasm
Myeloblasts (Fig. 4)	Many	Myelosis	Same as in peripheral blood
Monocytoid cells	Occas.	Hodgkin's disease	Like monocytes in peripheral blood occas. with more than one nucleus, Reed-Sternberg cells
Erythroid elements	Many	Extramedullary hematopoiesis, osteosclerotic anemia, spent polycythemia	Same as those seen in peripheral blood and bone marrow

Comment.—This case shows the benignity of Gaucher's disease. The patient was active all his life, but in the last six months found that the mass in his left side of the abdomen was interfering with his daily routine. The spleen was removed because of size.

It is interesting to note that the spleen was definitely more involved than the bone marrow. It seems possible, therefore, that a diagnosis may sometimes be delayed if the bone marrow alone is examined. Splenic aspiration, therefore, serves a definitely useful purpose in Gaucher's disease.

Extramedullary Hematopoiesis.—It is best that we define this term as used in this study. This serves to identify the presence of immature erythrogenetic elements, immature myeloid elements, or megakaryocytes (Fig. 6). Furthermore, the presence of lipoid or other histiocytic components may be included under this category. Such conditions as Gaucher's disease, Niemann-Pick disease, Hand-Schüller-Christian disease and Lederer-Siewe disease may thus be mentioned here.

It is well to stress the significance of extramedullary hematopoiesis. It appears, we believe, as a compensatory phenomenon in response to a failing marrow (osteosclerotic, myelosclerotic, myelophthisic).

Thus it is most frequently present in osteosclerotic anemia and spent or late polycythemia.

TABLE 2.—*Tabulation of Criteria in Splenic Aspirations*

I. Hodgkin's disease
  A. Reed-Sternberg cells
  B. Increase in monocytoid cells
  C. Presence of eosinophiles
  D. Polynuclears present from 10 to 50
  E. Increase in large lymphoid elements (normal ratio of small to large lymphoid elements S:L is 90:10; here S:L is 30:70)
  F. Reticulum cells—1+ to 2+
II. Lymphosarcoma
  A. Large lymphoid elements increased (S:L is 10:90). These have large nucleus, rare nucleoli and scant cytoplasm (no checkerboard appearance)
  B. Mitotic figures are prominent
  C. Occasional hemohistioblasts seen
III. Giant lymphfollicular hyperplasia
  Same as lymphosarcoma with addition of occasional monocytoid and small lymphoid elements
IV. Lymphatic leukemia
  A. Chronic
    1. Small lymphoid elements (Grumelée cells) increased (S:L is 90:10). These cells are medium-sized and have a checkerboard appearance
    2. Large lymphoid elements are rare
    3. No polynuclears seen
  B. Acute
    1. Few Grumelée cells seen
    2. Preponderance of lymphoblasts with nucleoli
    3. Rare mitotic figures
  C. Subacute
    1. Grumelée cells and lymphoblasts equal in number
V. Myelogenous leukemia
  A. Chronic—Myelocytosis (90% of cells present)
  B. Acute—Myeloblastosis (90% of cells present)
VI. Extramedullary hematopoiesis present

	Myeloid	Erythroid	Lymphoid	Lipoid, Gaucher Niemann-Pick	Megakaryocytic
A. Osteosclerosis					
1. Early polycythemia	+	+	−	−	+
2. Late polycythemia	+	+++	−	−	+++
B. Leukemia with myelosclerosis..	+++	±	−	−	−
C. Myelogenous leukemia	+++	±	−	−	±
D. Lymphatic leukemia	−	−	+++	−	±
E. Osteosclerotic anemia	++	++	−	−	+
F. Gaucher's disease	−	−	−	+++	−
G. Niemann-Pick disease	−	−	−	+++	−
VII. Absence of or minimal extramedullary hematopoiesis					
A. Familial hemolytic anemia....	−	−	−	−	−
B. Acquired hemolytic anemia....	−	−	−	−	−
C. Cooley's anemia	−	−	−	−	−
D. Sickle cell anemia.....	−	−	−	−	−

Spent Polycythemia Versus Leukemia.—The following case is an illustration.

Patient L. G., a woman aged 38, presented anemia, inability to walk, an enlarged spleen 4 to 5 fingerbreadths below the costal margin, and an enlarged liver about the same size. There was a past history of polycythemia of 10 years' duration followed by hemiplegia. The peripheral blood showed a hemoglobin value of 58%, 3,007,000 red blood cells, 7,650 white blood cells, and 200,000 platelets.

Bone-marrow aspiration showed sparse marrow, relative erythroblastosis, smudges, and toxic elements.

Splenic aspiration revealed extramedullary hematopoiesis with 2 + erythrogenesis, and 1 + leukogenesis.

Necropsy showed erythroblastosis and a leukemoid reaction in all the reticuloendothelial organs.

Comment.—This case points out the important relationship of osteosclerosis to splenic hematopoiesis in a case of spent polycythemia of 10 years' duration. Also, one takes a glimpse at nature's effort of "treating" polycythemia vera in its own way, by producing a space-consuming lesion in the bone marrow, mediated through a progressive fibrosis and resultant osteosclerosis. This case also brings to the fore the old controversy of polycythemia vera and leukemia. Does one transform itself to the other? Splenic aspiration, as exemplified in this case, brings out the inherent erythrogenetic quality (secondary to complicating osteosclerosis) as opposed to a primary leukogenetic quality expressed in a leukemic process. We feel that our experience with splenic aspiration helped us to better understand this controversial issue.

Absence or Minimal Hematopoiesis.—Contrary to our preconceived ideas, we were surprised to find little or no hematopoiesis in the hemolytic anemias. This was true in all hemolytic anemias, Cooley's anemia and, undoubtedly, in sickle cell anemia.

Patient G. P., a woman aged 36, presented anemia, icteric tint to sclerae, and a spleen enlarged to below the umbilicus; splenectomy was done.

Studies on the peripheral blood revealed a hemoglobin value of 40%, and 1,770,000 red blood cells, 300,000 platelets, and 7,300 white blood cells, with a differential count of 78% polymorphonuclear leukocytes, 16% lymphocytes, and 6% monocytes.

Bone-marrow aspiration revealed a G:E ratio of 40:60 and an E:N ratio of 70:30 and 3 + megakaryocytes, 36% myelocytes, 18% metamyelocytes, 18% staff cells, and 28% polymorphonuclear leukocytes.

Splenic aspiration showed no evidence of erythrogenesis, leukogenesis, or platelets. Pathologist's report of spleen revealed "no evidence of hematopoiesis—a diagnosis compatible with hemolytic icterus."

Comment.—This is an instance of the lack of hematopoiesis (extramedullary) in a case of proven hemolytic icterus. The pathological report of the removed spleen confirmed the diagnosis. It is interesting to note that the lack of hematopoiesis is a constant feature in the hemolytic anemias. Thus, we are not surprised to discover similar features in Cooley's anemia and sickle cell anemia. This finding affords us another point in a differential between the splenomegaly of hemolytic origin as compared to those of osteosclerotic origin. As a matter of fact, it can be stated categorically that the presence of hematopoiesis in a spleen is proof against a diagnosis of hemolytic anemia. This finding was concurred in by Moeschlin.[4]

COMMENT

Spleen aspiration has become an important addition to our diagnostic armamentarium in hematological conditions. It is interesting to note in this connection (Table 3) that in the 105 cases studied with spleen aspiration it was possible to make an adequate diagnosis by blood alone in 29 cases. In 32 cases the combined bone-marrow and peripheral blood studies led to the diagnosis. In 102 out of 105 cases, the combined spleen aspiration with the bone-marrow and peripheral blood studies led to the correct diagnosis. Thus, it may be seen that at the present time the hematologist has at his command the utilization of four avenues of approach to a clinico-hematological problem, i. e., the blood, the bone-marrow, the lymph-node, and the splenic aspiration. Certain conditions previously difficult to diagnose ante-mortem become very easily identified. These are (1) osteosclerotic anemia, (2) extramedullary hematopoiesis, (3) Gaucher's disease (especially if absent in the bone marrow), and (4) spent polycythemia.

Again, it is generally accepted that splenectomy is contraindicated if the spleen shows hematopoiesis. In these circumstances, it is imperative to ascertain whether extramedullary hematopoiesis is absent before contemplating splenectomy. This can easily be done by splenic aspiration. Thus, the surgeon has still another precaution to observe before attempting splenectomy.

SUMMARY

A series of 105 splenic aspirations is reported and analyzed, and the technique of splenic aspiration is described. Criteria for the diagnosis of hematological conditions by splenic aspiration are outlined. Diagnosis by splenic aspiration is made possible in conditions heretofore identified only at operation (splenectomy) or necropsy.

TABLE 3.—*Comparative Diagnostic Value of Studies of Peripheral Blood, Bone-Marrow, and Splenic Aspiration in 105 Cases with Splenomegaly*

Diagnosis Established by	No. of Patients	Percentage Correct Diagnosis
Peripheral blood alone	29	27.6
Bone marrow and peripheral blood combined	32	30.5
Splenic aspiration, bone marrow and peripheral blood	102	97.2

Another means of studying extramedullary hematopoiesis is offered. Splenic aspiration as a precautionary measure prior to splenectomy, to exclude hematopoiesis, is presented. Hemolytic icterus, Cooley's anemia, sickle cell anemia, and other hemolytic anemias do not present significant splenic hematopoiesis.

645 Ocean Ave.

4. Moeschlin, S.: Personal communication to the authors.

Thirst.—Two theories have been advanced to explain the mechanism by which the sensation is aroused. . . . According to one view, thirst is due simply to the drying of the pharyngeal mucous membrane, the salivary glands being given a role in the regulation of the water balance of the body. When the water content of the body falls below a certain level salivary secretion is depressed, the consequent drying of the mucous membrane of the throat then elicits the characteristic sensation. If such a view is correct, drying of the pharyngeal mucosa from whatever cause should cause thirst. . . . According to the other view, thirst is a sensation resulting from changes in blood composition, probably to a rise in its osmotic pressure, which stimulates the afferent nerve endings; or acts perhaps upon central nervous structures. . . . Neither theory alone explains all the experimental facts. It appears that the factors concerned in the production of thirst are both local and general. The importance of a rise in the osmotic pressure of the blood in causing the sensation is suggested by the experiments of Verney on water diuresis, for it is not unreasonable to suppose that thirst and the control of the water balance of the body through the antidiuretic principle of the pituitary are parts of the same mechanism.—Charles Herbert Best, M.D., and Norman Burke Taylor, M.D., The Physiological Basis of Medical Practice, Baltimore, The Williams & Wilkins Company, 1950, p. 606.

COLLECTING SPECIMENS FOR THE LABORATORY DEMONSTRATION AND ISOLATION OF FUNGI

Libero Ajello, Atlanta

Clinical laboratory procedures in medical mycology are directed toward the demonstration and isolation of pathogenic fungi occurring in body tissues and fluids. The diagnostic laboratory, however, cannot function unless adequate specimens, properly collected and handled, are received.

This paper has been prepared to assist clinicians in the collection of appropriate specimens from patients suspected of having mycotic infection. In general, the procedures involved are simple, and no elaborate equipment is required.

The types of specimens needed to demonstrate these fungi and to isolate them from clinical materials will be described for the following groups of fungus infections and for each specific disease.

SUPERFICIAL MYCOSES

These are fungus infections confined to the outermost layer of the skin and hair. The diseases included in this category are (1) erythrasma, (2) piedra, (3) tinea nigra, (4) tinea versicolor and (5) trichomycosis axillaris.

The mycotic nature of erythrasma, tinea nigra and tinea versicolor is established by the microscopic examination of skin scrapings obtained from suspected skin lesions. The affected area is prepared by a swabbing with a sponge soaked in 70% alcohol. This washing serves to remove dirt particles and any medication that would make microscopic examination difficult. After drying, the lesion is scraped with a sterile scalpel. The scales so obtained are placed in a small, sterile Petri dish and sent to the laboratory with all necessary data. For mailing to an outside laboratory, scrapings should be deposited on a piece of clean white paper that is carefully folded in the form of a packet to guard against loss of the material.

In suspected cases of trichomycosis axillaris, hairs are clipped from the axillary or pubic region, depending on the site of infection, and the specimen is sent to the laboratory in a Petri dish or a folded piece of paper.

In piedra, a mycotic infection of the hair of the scalp and beard, hairs are clipped from the areas involved and sent to the laboratory in a similar manner.

Cultures are not made in cases of erythrasma, tinea versicolor, and trichomycosis axillaris, as media have not yet been developed for isolating the causative agents. Their diagnosis is made solely on the basis of clinical impression and the demonstration of fungus elements in scrapings.

CUTANEOUS MYCOSIS

In this category are placed all those mycotic infections that involve the skin and hair to a greater extent than do the infections classified as superficial mycoses. These diseases, known as the dermatophytoses, include the following: (1) tinea pedis (athlete's foot); (2) tinea corporis (ringworm of the body); (2) tinea capitis (ringworm of the scalp); (4) tinea cruris ("jock itch," ringworm of the groin); (5) onychomycosis (nail infection); (6) candidiasis (moniliasis), and "thrush," paronychia and vaginitis.

In lesions involving the skin and nails, scrapings are obtained with a scalpel after careful washing of the site with alcohol. In ringworm infections of the smooth skin, it is important to collect the specimen from the active border of the lesions. Fungi grow in a centrifugal manner from the original point of infection and, as the fungus advances, a circular lesion is produced.

Hairs from suspected cases of tinea capitis are plucked out with tweezers. They are best obtained from the center of patches of infection that contain the stubs of infected hairs.

In scalp ringworm caused by species of Microsporum, the infected hairs fluoresce with a bright yellow-green color when exposed to ultraviolet light in a dark room. One can take advantage of this phenomenon by plucking the fluorescent hairs, thus insuring that only the infected hairs are collected and making isolation of the causative agent more certain. It is well to remember, however, that, in tinea capitis due to the trichophytons, infected hairs do not fluoresce brightly. Hairs from suspected lesions should be collected for culturing and microscopic examination regardless of the reaction to ultraviolet irradiation.

Skin and nail scrapings and hairs may be forwarded to the diagnostic laboratory in sterile Petri dishes or paper packets.

In suspected cases of Candida (Monilia) albicans infection, scrapings from the affected areas should be directly smeared on clean slides and, after drying, sent to the laboratory. In addition, several tubes of Sabouraud's dextrose agar should be inoculated with the material. Cotton swabs are not recommended for mailing, as they dry out in transit and hinder or even prevent the demonstration and isolation of fungi.

SUBCUTANEOUS MYCOSES

In this group are found the following diseases: (1) chromoblastomycosis; (2) mycetoma; (3) rhinosporidiosis, and (4) sporotrichosis. From this group of infections, clinical material of the following types may be used for laboratory examination: (1) pus from open abscesses; (2) exudate from draining sinus tracts; (3) material aspirated from subcutaneous abscesses and unopened sinus tracts, and (4) tissue taken for biopsy.

Such material should be placed in sterile vials or test tubes or, if mailed, inoculated on suitable media. There is an exception to this rule: scrapings and biopsy material from suspected rhinosporidiosis should be examined directly or fixed for histological examination. Media are not available for the culturing of the causative agent, Rhinosporidium seeberi.

SYSTEMIC MYCOSES

Systemic mycoses are caused by organisms that invade and attack the internal organs of the body, such as the lungs, liver, spleen, and kidneys. It must be remem-

From the Laboratory Services, Communicable Disease Center, Public Health Service, Federal Security Agency.

bered, however, that cutaneous manifestations of these diseases do occur, and specimens in such instances are collected in a manner similar to that described for the cutaneous mycoses. The systemic human fungus infections are (1) actinomycosis (caused by Actinomyces bovis), (2) North American blastomycosis, (3) South American blastomycosis, (4) candidiasis (moniliasis), (5) coccidioidomycosis, (6) cryptococcosis (torulosis), (7) geotrichosis, (8) histoplasmosis, and (9) nocardiosis (caused by Nocardia asteroides).

Materials for laboratory examination in systemic diseases are obtained from such varied sources as blood, spinal fluid, sputum, exudates from draining sinuses and abscesses, sternal marrow, scrapings from edges of ulcers and abscesses, aspirated fluid from subcutaneous abscesses and sinus tracts, and tissue taken for biopsy.

These materials should be placed in sterile vials, Petri dishes or test tubes for transfer to the laboratory. For mailing purposes, they should be inoculated on suitable media. Smears may also be made.

Peripheral blood, spinal fluid, sternal marrow and aspirated fluids should, of course, be collected with strict sterile precautions and inoculated directly onto appropriate media and/or placed in suitable sterile containers prior to transfer to the laboratory.

LABELING OF SPECIMENS

To facilitate the work of the diagnostic laboratory the following data should accompany all specimens submitted: (1) patient's name, age, and sex; (2) hospital or other number assigned to the patient or specimen; (3) name and address of the physician or other official to whom laboratory report is to be sent; (4) type of material submitted and date collected, and (5) suspected disease.

This last item, the citing of the suspected mycotic disease, is very important, as it serves to guide the laboratory in the examination of the specimen. For example, in suspected cases of actinomycosis, cultures are made on special media and incubated anaerobically. Unless A. bovis is suspected as the causative agent, fungus cultures routinely are incubated aerobically.

MAILING OF SPECIMENS

For best results, only agar cultures should be mailed to a laboratory for mycological examination. With the exception of such materials as skin scrapings, nail clippings and hairs, most clinical specimens are valueless by the time they reach the laboratory. While in transit, sputum, urine, exudates from lesions, bronchial washings and biopsied tissue usually become so quickly overgrown with saprophytic organisms that the demonstration and isolation of any pathogenic fungus originally present are rendered impossible. Clinical materials of this type should be sent to the laboratory only as a last resort, when media are not available and even then in rubber-stoppered vials tightly sealed and carefully wrapped for mailing.

When cultures are forwarded to a reference diagnostic laboratory, it is advisable to mail only pure and selected fungus cultures. If several different fungus species appear in a tube, only those suspected of being pathogenic should be subcultured to fresh tubes and mailed. Laboratory workers should be familiar with the most common saprophytic fungi, members of such genera as Alternaria, Aspergillus, Penicillium and Rhizopus, and should discard them when they appear in their cultures, unless there are specific grounds for considering them pathogenic in any given instance.

To facilitate the handling of cultures by the diagnostic laboratory, it is recommended that test tubes of standard size (18 by 150 mm.) be used. Odd-sized tubes and bottles are inconvenient to handle and present storage problems. Since the growth of many fungi is inhibited in screw-capped tubes, all cultures should be cotton-plugged. Test-tube cultures must always be wrapped individually in cotton or paper before being placed in the mailing container. The free space in the mailing tube should then be packed with sufficient cotton or other material to prevent breakage. Material obtained under sterile conditions, such as blood, spinal fluid, and aspirated pus, may, if necessary, be shipped by mail, provided that they are collected in sterile, tightly sealed vials or tubes. Of course, such containers must be packed carefully.

Petri-dish cultures should never be sent through the mail as they almost invariably break in transit; neither should cotton swabs be mailed, since they usually become desiccated before arrival at the laboratory.

ISOLATION MEDIA

The following formulas of media are suggested for the primary isolation of pathogenic fungi:

1. Sabouraud's Agar

Purpose.—Isolation of most pathogenic fungi.

Composition.—The formula follows.

Dextrose	40.0 gm.
Peptone	10.0 gm.
Agar	15.0 gm.
Distilled water	1,000.0 ml.

Procedure.—Dissolve ingredients in a water bath; place 8 ml. in an 18 by 150 mm. test tube. Sterilize by autoclaving 10 minutes at 120 C., and slant. This medium is prepared in dehydrated form by several companies.

2. Thiamine-Dextrose Agar

Purpose.—Isolation of Trichophytons of the faviform group, including Trichophyton violaceum.

Composition.—The formula follows.

Dextrose	40.0 gm.
Peptone	10.0 gm.
Thiamine	0.001 gm.
Agar	15.0 gm.
Distilled water	1,000.0 ml.

Procedure.—Dissolve ingredients in a water bath; place 8 ml. in an 18 by 150 mm. test tube. Sterilize by autoclaving 10 minutes at 120 C., and slant.

3. Blood Agar plus Antibiotics

Purpose.—Isolation of Blastomyces dermatitidis, Blastomyces brasiliensis, Histoplasma capsulatum.

Composition.—The formula follows.

Brain-heart infusion [1]	37.0 gm.
Agar	20.0 gm.
Distilled water	1,000.0 ml.

1. Brain-heart infusion is prepared in dehydrated form by several companies.

Procedure.—Dissolve ingredients in a water bath; place 17 ml. in a 25 by 150 mm. test tube. Autoclave at 120 C. for 10 minutes. Cool to 50 C. and add aseptically

1.0 ml. of blood, 340 units of penicillin and 680 units of streptomycin per tube, and slant.

4. Brain-Heart Infusion Agar

Purpose.—Isolation of A. bovis (shake tubes).

Composition.—The formula follows.

Brain-heart infusion [1]	37.0 gm.
Agar	15.0 gm.
Distilled water	1,000.0 ml.

Procedure.—Dissolve ingredients in a water bath; place 8 ml. in an 18 by 150 mm. test tube. Sterilize by autoclaving 10 minutes at 120 C. Do not slant. To use, melt agar in a water bath, cool to 50 C., inoculate with a loop, mix thoroughly, allow to solidify, and incubate.

SUMMARY

The accompanying table summarizes the various types and sources of materials that are required by the laboratory for the successful demonstration and isolation of fungi in given types of fungus diseases.

Source of Specimens and Media Required for the Demonstration and Isolation of Fungi from Specific Types of Fungus Diseases

Disease	Type of Specimen	Isolation Medium
Superficial mycoses		
Erythrasma	Skin scrapings	None available at present
Piedra	Clipped hair	Sabouraud's dextrose agar
Tinea nigra	Skin scrapings	Sabouraud's dextrose agar
Tinea versicolor	Skin scrapings	None available at present
Trichomycosis axillaris	Clipped hair	None available at present
Cutaneous mycoses		
Candidiasis	(*a*) Skin scrapings	Sabouraud's dextrose agar
	(*b*) Scrapings from mucocutaneous areas	
	(*c*) Vaginal scrapings	
Onychomycosis	Nail scrapings	Sabouraud's dextrose agar
Tinea capitis	Plucked hair	(*a*) Sabouraud's dextrose agar
		(*b*) Thiamine-dextrose agar
Tinea corporis	Skin scrapings	(*a*) Sabouraud's dextrose agar
		(*b*) Thiamine-dextrose agar
Tinea pedis	Skin scrapings	Sabouraud's dextrose agar
Subcutaneous mycoses		
Chromoblastomycosis	(*a*) Crusts and scrapings from warty outgrowths	Sabouraud's dextrose agar
	(*b*) Exudate from lesions	.....
Mycetoma	(*a*) Pus from draining sinuses	(*a*) Sabouraud's dextrose agar
	(*b*) Aspirated fluids from unopened sinus tracts	(*b*) Brain-heart infusion agar for actinomycotic mycetomas (shake tubes)
	(*c*) Biopsy specimens	.....
Rhinosporidiosis	(*a*) Biopsied nasal and ocular polyps	None available at present
	(*b*) Skin scrapings	.....
Sporotrichosis	(*a*) Pus from ulcers	Sabouraud's dextrose agar
	(*b*) Aspirated fluid from subcutaneous abscesses	.....
Systemic mycoses		
Actinomycosis	(*a*) Pus from draining sinuses	Brain-heart infusion agar; shake tubes
	(*b*) Aspirated fluid from subcutaneous abscesses	.....
	(*c*) Sputum	.....
	(*d*) Spinal fluid	.....
	(*e*) Bronchial washings	.....
Blastomycosis, North American	(*a*) Scrapings from edge of skin lesions	(*a*) Sabouraud's dextrose agar
	(*b*) Pus from open abscesses	(*b*) Blood agar plus antibiotics
	(*c*) Pus from sinus tracts	.....
	(*d*) Urine	.....
	(*e*) Sputum	.....
	(*f*) Bronchial washings	.....
Blastomycosis, South American	(*a*) Scrapings from edge of skin lesions	(*a*) Sabouraud's dextrose agar
	(*b*) Scrapings from mucous membranes	(*b*) Blood agar plus antibiotics
	(*c*) Biopsied lymph nodes	.....
	(*d*) Sputum	.....
	(*e*) Bronchial washings	.....
Candidiasis	(*a*) Sputum	Sabouraud's dextrose agar
	(*b*) Bronchial washings	.....
	(*c*) Spinal fluid	.....
	(*d*) Urine	.....
	(*e*) Stools	.....
Coccidioidomycosis	(*a*) Sputum	(*a*) Sabouraud's dextrose agar
	(*b*) Bronchial washings	(*b*) Blood agar plus antibiotics
	(*c*) Spinal fluid	.....
	(*d*) Urine	.....
	(*e*) Scrapings from skin lesions	.....
	(*f*) Pus from draining abscesses and sinuses	.....
Cryptococcosis	(*a*) Spinal fluid	Sabouraud's dextrose agar
	(*b*) Sputum	.....
	(*c*) Pus from abscesses	.....
	(*d*) Pus from sinus tracts	.....
	(*e*) Scrapings from skin lesions	.....
	(*f*) Urine	.....
Geotrichosis	(*a*) Sputum	Sabouraud's dextrose agar
	(*b*) Bronchial washings	.....
	(*c*) Stools	.....
Histoplasmosis	(*a*) Blood	(*a*) Sabouraud's dextrose agar
	(*b*) Sternal marrow	(*b*) Blood agar plus antibiotics
	(*c*) Sputum	.....
	(*d*) Bronchial washings	.....
	(*e*) Spinal fluid	.....
	(*f*) Pus from sinus tracts	.....
	(*g*) Exudate from ulcers	.....
	(*h*) Scrapings from skin lesions	.....
Nocardiosis	(*a*) Sputum	Sabouraud's dextrose agar
	(*b*) Spinal fluid	.....
	(*c*) Pus from abscesses	.....
	(*d*) Bronchial washings	.....
Miscellaneous mycoses		
Aspergillosis	(*a*) Sputum	Sabouraud's dextrose agar
	(*b*) Bronchial washings	.....
Mucormycosis	(*a*) Sputum	Sabouraud's dextrose agar
	(*b*) Bronchial washings	.....
	(*c*) Biopsy material	.....
Penicilliosis	(*a*) Sputum	Sabouraud's dextrose agar
	(*b*) Bronchial washings	.....

PSYCHIATRIC TECHNIQUES IN MEDICAL PRACTICE

A. Z. Barhash, M.D., New York

Psychiatry, as a medical specialty, today finds itself vastly oversold, in the sense that the public expects of it much more than it will be able to deliver for many years to come. As someone interested in the public health aspects of psychiatry, I want to discuss some of the things we can do to satisfy the psychiatric needs we see and the demands we have created. In the confusion besetting the field of mental health, I have attained at least two clear convictions. The first is that the medical profession will never do a satisfactory job of safeguarding and raising the health level of the population until it is in a position to contribute more effectively to mental and emotional health. The second is that such a contribution will never be made until the major portion of it can be made through the work of nonpsychiatric medical practitioners. Up to now the medical profession has restricted its work largely to the cure and prevention of those ills which are caused by bacteriological and toxic agents, degenerative processes, neoplasms, and other such physical factors. Until it broadens this approach, it will continue to neglect a major source of morbidity—that which results from emotional conflicts and tensions. Up to now this area has been left almost exclusively to psychiatrists, but it is a task which is impossible in its proportions for a small, specialized group. For the job to be done, it must be undertaken by the medical profession as a whole. I think it is nonsense to speak of the hundreds of thousands of psychiatrists who must be trained to take care of the emotional health of our population. The training of such numbers will be impossible to achieve—and economically impossible to maintain if it were achieved. Furthermore, such an overwhelming undertaking is unnecessary. What is necessary, what is possible, and what is altogether practical is that general practitioners and pediatricians, allergists, obstetricians, surgeons, and even roentgenologists, learn something about their patients' emotions and the role that these play in health and illness. Let me make it clear that I am not trying to turn all physicians into psychiatrists, nor am I suggesting that the specialty of psychiatry be abolished. Presumably, there will always be room for specialists who will occupy themselves with the study and treatment of emotional illnesses. However, the vast majority of persons who can be helped to better health through assistance with their emotional problems need not and should not go to psychiatrists. In the course of their ordinary contacts with medical practitioners, they have a right to expect that these physicians will have the wherewithal to assist them with the usual run of emotional ills. Such an expectation is not unreasonable, and if the medical profession applies itself to the task, it will be able to meet it with complete adequacy.

I have no illusions about the perfection or the completeness of today's psychological insights. There is a tremendous amount that even the best informed and most skillful psychiatrist does not know and cannot do. But in spite of these shortcomings psychiatrists do know certain things about mental and emotional development which can be utilized to make people healthier and happier. Furthermore, most of these things we know are of such a nature that they can be learned and effectively utilized by physicians who are not specialists in the field. And let me make it clear that when I speak of using psychological skills I refer to their application—not to the narrow field of severely neurotic patients or the somewhat broader field of patients with so-called "psychosomatic" symptoms—but I mean the utilization of these insights and skills in the case of every patient who enters a physician's office. It has become common knowledge that psychogenic factors play an important role in many more illnesses and with many more patients than was thought conceivable some 10 years ago. At that time, for example, even the best obstetricians thought they had done handsomely by a patient with repeated abortions when they had exhausted all the physical examinations, laboratory tests, roentgenograms and endocrinological studies that might reveal the source of the trouble. Now it is known that beyond what might be uncovered in such examinations, there are instances where a woman's unconscious inability to accept a pregnancy or the role of motherhood may be the real cause of the repeated abortions. Not so long ago the surgeon had done his duty when he repeatedly sewed up, splinted, or put into casts persons who somehow repeatedly got into accidents. Now it is known that an unconscious tendency to punish oneself, and a perverse satisfaction in the resulting suffering, play a large role in the causation of these repeated accidents. But even beyond instances of this kind, even where psychogenic factors play no part in the causation of the illness, it can still be said that every patient who suffers enough to come to a physician has some emotional reaction to his illness. And it is the physician who best understands this reaction who is best equipped to help the patient.

BARBITURATES

Let us have a look at some of the methods commonly employed in the treatment of emotional difficulties. I have not seen the latest figures on the sale of barbiturates, but as I recall those I last saw, it struck me that even in those states where the sale was restricted to patients with physicians' prescriptions, the amount sold was colossal. The only reason sales can reach such proportions is that the symptoms controlled by barbiturates appear so often among the patients you treat.

Among those for whom barbiturates are prescribed is first the patient with insomnia. The one who is tired all day and restless all night almost inevitably comes away from his physician with some barbiturate. The physician knows that the treatment is only symptomatic, but he has done whatever he could to rule out organic pathology, and beyond that he feels that there is nothing left for him to do but to make his patient comfortable. Since most of

Read before the Yale Clinical Congress, New Haven, Conn., Sept. 13, 1950.

these conditions are chronic—and I refer here particularly to the chronic ones—the physician who prescribes barbiturates to such a patient has started him on a long term program of taking this medication, which as even the labels on bottles indicate, "may be habit-forming." I leave it to others to point out the possible pharmacological effects of continued use of barbiturates. What I am better acquainted with are the clinical effects, and these are such as to give conscientious physicians cause for concern about the widespread use of these drugs. The course is so regular that it can generally be charted in advance. The patient takes the prescribed dose and gets relief. Several weeks later the effectiveness of the original dose has worn off, and he is getting no more sleep with it than he was getting before starting medication. Either on the suggestion of the physician, or without asking for such advice, he keeps increasing the dose, always with the result that the increased dose at first brings relief, only to have it wear off in a shorter or longer period of time. At last he ends up taking as much of the drug as he dares, or as much as his physician will allow him, or as much as he can take without feeling drowsy all the next day. What has happened to his sleep in the meantime? He still sleeps just about as little as he slept before he started taking barbiturates. Then he decides to go to another physician who again puts him through all the clinical tests, which again reveal no organic etiology. When that is over, the patient begins a new course with a different sedative. But he's only on a merry-go-round, —always on the way back to where he started from, and getting very dizzy in the process.

There is one other group of patients treated to a steady diet of barbiturates. They are the ones with persistent anxiety symptoms, either appearing by themselves, or accompanying somatic disorders. They are the patients who are restless, who complain of jitters and cannot relax. They perspire easily, get flushed, have a rapid heartbeat, and maintain a constant attitude of tension. They are the ones who are suspected of hyperthyroidism without having it, the ones who have innumerable gastrointestinal series, without any pathology ever being discovered. They too respond well to barbiturate medication in the early stages, but a steady diet of these drugs results as badly for them as it does for the insomniac, the only difference being that the ill-effects here show a somewhat greater variability. It is evident then that even in the control of superficial symptomatology, continuous use of barbiturates can hardly be justified. If one looks just a little deeper, there is even less excuse for their being used as extensively as they are. The same reasoning applies here as applies to the use of potent analgesics and opiates for the control of pain. Easy resort to these drugs makes physicians too casual and too negligent in their efforts at discovering and correcting the basic pathology. It is known well enough that the premature use of morphine can lead to the neglect and further development of an otherwise-correctible surgical condition. In like manner it behooves the medical practitioner to wonder what it is he is shielding, what he is allowing to develop further, when he starts dosing his patient with barbiturates, which have only the effect of enabling the patient to tolerate a condition which otherwise might be corrected. The patient with an anxiety state who is repeatedly dosed with barbiturates is not being relieved of his anxiety. The outward manifestations are being covered, while the basic tension mounts up, while the etiological factors continue to grow, and while new symptoms develop which will be more damaging and harder to treat. There are, of course, instances in which even the continued use of opiates is justified, those in which the condition is hopeless, and physicians wish to make the patients as comfortable as possible. But we must make sure *before* we resort to this kind of medication that the condition is really hopeless. That, precisely, is what the medical profession has not done in those emotional ills in which sedatives are overused. Not only are many of these conditions less hopeless than they have been considered, but the well-informed and conscientious physician today can treat many of them in his own office, without resort to help by specialists, and without barbiturates.

I do not want to leave the impression that in my opinion there is no legitimate place for the use of barbiturates. There are many instances where the impact of an acute crisis can be materially lessened if the patient's reactivity is diminished by the use of sedatives. There are others in which the artificial induction of several nights' sleep can be of tremendous help in withstanding a physical illness, in living through a crisis, or in gathering strength for the solution of some difficult problem. There is a group of convulsive disorders in which the thoughtful and prolonged use of sedation constitutes the major therapy. But aside from these conditions, the continued use of sedation is something which on its face is suspect, and in the vast majority of instances is bad medicine.

REST CURES

Among the substitutes for sympathetic understanding and effective treatment of emotional ills, one that holds a high priority in today's medical practice is the prescription of rest cures and vacations. Here again I do not want to be too sweeping in my dismissal of such treatment. There are some patients suffering from fatigue in whom a rest and a change can have beneficial results. Clinical observation convinces me, however, that only a very small proportion of patients so treated fall into this group. In too many instances the physician recommends a rest or a vacation because he does not know what else to do, or perhaps because he is projecting his own feeling that he himself could benefit by a rest. The patient with chronic fatigue, who suffers not from overwork but from the ravages of inner conflicts, takes these conflicts with him when he goes on vacation, and he will continue to be as fatigued during and after the vacation as he was before. The patient who suffers the effects of an impossible situation, impossible because of its intrinsic nature or because of his own inability to adjust to it, is going to come back from the vacation to find himself in exactly the same spot he was in before, and his symptoms (whatever they were) will quickly reappear, even if he has benefited temporarily from the vacation. The prescription is worst of all for patients who come to the physician with feelings of helplessness, hopelessness, inadequacy, and frustration. Often such patients are told to get away from it all, to go somewhere where they can have a good time and get a rest. These are the pa-

tients who jump out of hotel windows or die from an overdose of sleeping pills taken while away from home. They are the ones whose inner fears cause them to go to a physician looking for support, and instead they are sent off to a strange environment where there is no one to lend them that support. They are often persons in the throes of an early depression, in whom close watch and rapid treatment can make the difference between life and death. But they are sent off to a place where no one sees them, where they are left altogether to their own resources, and where medical help is not quickly available. Even when the ill-effects of a vacation are less traumatic and less drastic, the obligation "to have a good time" when one is not in the mood for it can often be more oppressive and more laborious than going on with one's daily responsibilities.

ELECTROSHOCK

Lest it be thought that as a psychiatrist I take a holier-than-thou attitude toward the rest of the profession without seeing the weaknesses in his own specialty, I should like to point out our own indiscriminate use of some therapeutic techniques. As a matter of fact, we psychiatrists have contributed in no little measure to the misuse of both barbiturates and rest cures. Perhaps we have come along a little in these respects, but there are still enough of us who use these treatments thoughtlessly. However, our major sin of the moment lies in our misuse and overuse of electroshock therapy. It is a form of treatment that is specifically suited to certain conditions, and when restricted to those conditions can be dramatically and lastingly effective. However, the dramatic quality of this treatment, its ease of application, and the fact that it is not time-consuming (and therefore is very profitable)—all contribute toward making it one that is easily abused. There are recurring controversies within psychiatric groups, not so much over the effectiveness of the treatment, but over its legitimate field of application. I am among those who feel that many psychiatrists resort to electroshock treatment too quickly, too frequently, and too exclusively. It is very useful in severe depressions, especially where the threat of suicide makes quick treatment imperative, or where other forms of treatment such as psychotherapy have already proved ineffective. Nonpsychiatric medical practitioners cannot sit as judges in this controversy, but I would advise that in those instances in which one has occasion to refer patients for specialized psychiatric treatment one be cautious about referring them to psychiatrists who make too facile or too general use of this form of treatment.

ACCUSATION AND CONFRONTATION

One "psychiatric technique" too frequently employed is that of accusation and confrontation. Perhaps it is surprising that I list these among frequently used devices in medical practice. I am sure that very few physicians in their own minds place this label on what they do to their patients. But a critical look reveals that the physician who uses this method is no rarity. A patient presents himself to a physician with troublesome and sometimes baffling complaints. The physician investigates the case conscientiously and treats the patient with devotion and care. Then it turns out that the patient's illness is without organic basis, and at this point the physician feels cheated and put upon. He confronts the patient accusingly with a stack of normal roentgenograms and laboratory reports. He tells him there is nothing wrong with him, that he is only imagining his symptoms, that he is a neurotic, and sometimes even that he is a faker. The manner in which this confrontation is carried out varies anywhere from subtle diplomacy to brusque brutality. But even in the former instances the patient understands its meaning oftener than the physician gives him credit for. The patient feels perplexed and resentful about an unfair accusation. It is not his fault that the laboratory tests were normal, and he knows full well that his symptoms are real, that they are not being imagined and certainly not being faked. If he has it on the authority of the physician that such symptoms must be accompanied by positive objective findings, the only conclusion he can draw is that the physician was not skillful enough to locate the pathology, and there is nothing for him to do but go to another physician and subject himself to another series of investigations. On the other hand, a physician who appreciates the potency of psychogenic forces in the causation of somatic symptoms, one who has a sympathetic understanding of the state of mind of the sick and frightened patient, is able to be of tremendous help to his patient and to come off with much more credit to himself. The same set of negative findings can be presented to the patient as something reassuring rather than as a proof of his dishonesty. They can be presented as something perfectly understandable, rather than as something that is baffling and mysterious. The reassurance, accompanied by the physician's understanding of the patient as well as the laboratory reports, can in itself be tremendously helpful. Beyond that, it clears the decks for a consideration of what might be involved when organic pathology was not present.

UNINFORMED PATIENTS

Among those medical practices which must be termed psychologically unsound, one of the most frequent is that of keeping the patient ignorant of the facts of his illness. One result of this practice has been decried by many physicians. It is the habit the American public has developed of seeking medical information from a variety of lay sources, mostly in newspapers and magazines, in which the authors are more interested in the salability of the printed matter than in its salutory effect on the health of the patient. The stirring up of confusions, the whipping up of anxiety, and the mass stampeding to the use of untried drugs are only a few of the undesirable effects. But those in the medical profession who criticize writers for catering to the curiosity of the public should stop first to examine their own role in having created this curiosity. Considering its educational level, the American public is shockingly ignorant about the human body, its anatomy and physiology, its health and its illness. Some portion of the fault for this ignorance rests with the nation's educational institutions, which have convinced themselves that it is more important for a person to know the third declension in Latin than it is for him to know what the stomach is, where it lies, how it works, and what disturbs its workings. But we

physicians also carry a large share of the blame. It is everyday practice for physicians to give vague, noncommittal names to the conditions for which they treat their patients and to give treatments without identifying or explaining them. In no other country are patients of equal sophistication and equal educational level treated with so little respect for their curiosity and their understanding. I know of no country in western Europe in which an intelligent and well-read patient will report that he has received a course of injections from his physician, without being able to identify the condition for which he was being treated and the material that was being injected. But that is an everyday experience in this country. It is as though the medical profession had reached the tacit agreement that "the less said the better." From the point of view of one interested in mental health, it must be said that this conspiracy of silence has a most unfortunate effect on the general health level. It creates an atmosphere of mystery and confusion in which the patient is blindly buffeted between fear of the unknown and hope for magic. This cloak of silence with which we physicians surround ourselves has made patients anxious about themselves and distrustful of us. It is little wonder that they gobble up every bit of information which comes their way that might reveal to them some secret which physicians have been trying to hide. All this is the more unfortunate because it is so very unnecessary. The average American physician is so well-trained and so well-informed that he need not be at all ashamed of sharing with his patients his findings, his thinking, and his planning. Such openness with the patient will give the physician a more secure position of trust and respect. What is even more important, it will relieve the patient of that sense of anxiety which all persons feel when they are kept in the dark.

TONSILLECTOMIES IN CHILDREN

The failure of physicians to instruct their patients has been especially pernicious in the performance of tonsillectomies in children, a surgical procedure which is carried out on a very large proportion of the population at an age when the patient is particularly impressionable. Since physicians generally do not share much information with their patients, it is hardly surprising that they share even less with children. They assume that children would not understand anyway, and if they did understand, the information would only make them less tractable. Furthermore, they know that the operation involves very little surgical risk, that the patient is bound to come out without any serious damage. Therefore, they see little reason for arousing his anxiety by discussing the details of the coming operation. Those who measure damage from tonsillectomies in terms of anesthetic deaths or fatal hemorrhage are perfectly right in saying that in competent hands the surgical risk is a minimal one. However, if one considers the damage that tonsillectomies have inflicted on people by traumatizing them emotionally and causing them future states of tension and unhappiness, by making them feel less whole and less able to care for themselves in a hostile world, and by making them less able to derive full benefit from the ministrations of the physician, then one must say that the tonsillectomy looms as a very serious operation. Should the tonsillectomy as an operation be abandoned then? For my part, I should not like to take that responsibility on myself so long as more competent authorities feel that it is advisable to remove the tonsils either as a source of infection or as a mechanical impediment. I say only that if physicians are going to keep on taking out tonsils in the numbers that they have, they ought to be a little more cognizant of what happens to the patient, and much more effective than they have been in the past in minimizing the trauma. To the physician, the tonsillectomy is nothing more than a minor operation in which the two most frequent annoyances are an occasional bleeder or a loudly screaming child.

What is it like to the child himself, i. e., the child who is completely unprepared or who in place of preparation has received some evasion or some lie ("You're going to get an injection." "We're just going for a ride." "The doctor's just going to look at you.")? First of all, the child is taken out of the house hungry and brought to a strange and somewhat fearsome place. Even the adult reacts with apprehension and with a greater readiness for panic when he is hungry. (This is evidenced by our experience in the last war when the badly fed battalion was the one with the greatest number of psychiatric casualties and the one least able to accomplish its combat mission. On the other hand, those groups in which the commanding officers paid special attention to the maintenance of a good hot food supply were able to withstand surprising pressures.) This hungry and therefore apprehensive child is often kept waiting for long periods of time, and he sees and hears things which tend to increase his apprehension. He is then separated from his mother, usually not by his own physician, but by a strange and sometimes masked attendant or nurse. He sees other masked and robed figures, he smells strange smells, is given a painful injection, has a mask put over his mouth and nose, and is forced to breathe something which chokes him. Is it too surprising that to the uninitiated child the most frequent conclusion is that he is being killed, and that all the strange doings are nothing more than an accompanying ritual? He awakens feeling ill and experiencing a soreness in his throat, which convinces him that the attempt on his life somehow involved a stab in the throat. At this point he is usually still among strangers, and it is only when he is fully recovered from the anesthesia that his mother is allowed to see him. By that time he realizes that he has escaped death, but the anxiety which accompanies the miraculous escape stays with him, as do the confusion over why he was subjected to it, and the resentment against those who did it. Does all of this sound very fantastic? These are not my own fantasies. These are experiences recalled by many children soon after the tonsillectomy, and by many more adults in psychiatric treatment recalling traumatic experiences of childhood. So many psychiatrists have obtained such strikingly similar material from so many patients that there can be no doubt about the validity of these reports.

I have said before that I do not expect the medical profession to give up tonsillectomies. I do not expect every child who is going to undergo one to be sent first for a course of treatment by a psychiatrist. Any pediatrician, any general practitioner, any ear, nose, and

throat specialist who takes the trouble to think about how a tonsillectomy might affect the child will readily find means to avoid the worst of the possible damage. I stress this example not only because the tonsillectomy is such a frequent procedure, but more because a consideration of what the physician might do for the tonsillectomy patient suggests much of what he can do by way of emotional assistance to patients in other circumstances. This, then, is what the physician might do for a child facing a tonsillectomy:

As a first requirement, I would say that he ought to be honest with the child, and as a corollary to the honesty, he ought to be informative rather than secretive. Depending on the age and the level of understanding of the child, the physician should tell him what is wrong, what the anatomical facts are, what is going to be removed, how it is going to be removed, and what the effects are. I know that when I use the phrase "depending on the level of understanding," many physicians will use this as an escape, because they assume blandly that children understand nothing and, therefore, they need explain nothing. Those of us who work with children realize that they understand much more of the important things than we ever give them credit for. What they fail to understand are not facts and ideas, but rather our complex and garbled terminology. Therefore, it behooves the physician who is not being understood to find simpler and more understandable ways of communicating his information, rather than assuming that the child cannot possibly grasp it. Beyond being honest and informative, the physician should be able to anticipate the major sources of the patient's anxiety. One of these is the aspect of strangeness which accompanies anyone's first surgical experience. If possible, the patient should be introduced to the scene before the actual operation. When he is taken from his mother, it should be by the physician or by a nurse with whom he is acquainted rather than by a total stranger. Even when it is not possible to make him familiar with the operating room in advance, it is at least possible to let him handle and smell an ether mask or, better yet, to let him take it home for a few days, where he can get familiar with it by putting it on himself, on other children, or on dolls. The mother should be with the child to the point where he is anesthetized and immediately on awakening. Even if it may be somewhat of a nuisance to have an anxious mother around, it still serves an important purpose in protecting the child. Although it cannot be avoided that the child be brought to the operation in a hungry state, a more careful attention to scheduling would eliminate the need for his sitting around hungry for many hours while awaiting his turn. By way of anticipating sources of anxiety, the physician should know that the mouth, as one of the early, primary sources of physical gratification, is emotionally very important to the child. The information about what is to be done should be so transmitted as to reassure the child about any possible damage to this primary source of gratification. Also by way of anticipating anxieties, the physician should know that some children will look on the surgical procedure as a punishment for crimes they imagine themselves to have committed (aggressive thoughts, or wishes). Here again, a reassuring, honest attitude will help eliminate such misinterpretations. Above all, the physician should avoid anything that can encourage fear and confusion—as happens in enuretic children, for example, when they are told that the tonsillectomy is going to cure the enuresis. Since they inevitably carry a load of guilt about their enuresis, they look on the operation not as a cure but as a punishment, an attack which will be repeated if the enuresis continues. For many such children, the tonsillectomy becomes a substitute castration.

SUMMARY AND CONCLUSIONS

As I mention ways in which physicians can be helpful with the emotional aspects of their patients' health, it may seem that I am not writing about psychiatric techniques, but rather about common sense, fundamental decency, sensitivity and intuition. Actually, that is all I am writing about, but intuition, decency, and common sense can be vastly more effective when combined with adequate knowledge about the emotional growth, development, and functioning of the human being. The good physician has always been honest with his patients; his honesty can be more meaningfully applied when he knows what security the patient seeks from it and the effect that it can have on the patient's well-being. The physician today must know a great deal about the emotional needs of his patients. He should know the possible consequences when these needs are not satisfied, for without such knowledge he cannot understand many of his patients' illnesses. He should know that when a patient comes to him whom he cannot help with medication and surgery, he may still be able to help him with reassurance, support, sympathetic understanding, and a clearing up of frightening misconceptions. He should know that a competent and sympathetic physician fulfills an urgent need for many patients as a parent-substitute, who serves as the guardian against both physical dangers and emotional terrors threatening their health. When common sense, sensitivity, honesty, and intuition are bolstered by this kind of psychological knowledge, then one can speak of the result as psychiatric techniques. But these are techniques that are available not only to the psychiatric specialist. They are equally available to the nonpsychiatric medical practitioner. The health needs of the population demand that they be adopted as everyday techniques by everyone practicing medicine.

National Association for Mental Health, Inc., 1790 Broadway, New York, N. Y.

Leiomyomas of Stomach.—Leiomyomas of the stomach which are large enough to cause clinical symptoms are not rare and will be encountered occasionally in roentgen studies. Such tumors often give evidence of their presence by gastric bleeding. Unless they produce obstruction, they cause little digestive distress and no cachexia, and often may be found when exploratory operation is done for other conditions. Because many of these tumors of smooth muscle origin may be sarcomatous, they should be removed by resection of the stomach rather than by local excision. If removed cleanly leiomyomas do not recur.—Samuel F. Marshall, M.D., and William A. Meissner, M.D., Leiomyoma of the Stomach, *The Surgical Clinics of North America*, June, 1951.

REFERRING YOUR PATIENT TO A PSYCHIATRIST

John M. Flumerfelt, M.D., Cleveland

A psychiatrist at a medical meeting of this kind would have been unheard of not too many years ago. If he had been present, he would probably have talked about insanity, illustrating his talk with microscopic pictures of brain damage.

Today I am not going to discuss the broader path created by psychiatry since then, nor its increased acceptance as an important functional part of the practice of medicine. The changed status of psychiatriy is abundantly evidenced by the fact that today I am going to consider the problem of referring an adult neurotic person to a psychiatrist—a person who is sane, sensitive, likely to have fears and prejudices related to psychiatry, likely to take offense or even to become alarmed at this suggestion from his physician.

In the last 50 years people have been given an idea that is perturbing and hard to believe: they have been told that man does not know all of his own mind; that many of his thoughts and actions, as well as many of the symptoms he may have, are motivated by psychic forces within himself of which he is unaware. The problem was simpler four centuries ago, when the strange behavior of the mind was thought to be caused by demons who supposedly had taken up residence in the unfortunate sufferer, or half a century ago, when much more scientific beliefs held that each departure from the "normal" was caused by a physical disease process which would reveal itself in an organic pathology if only that could be found. For these and other reasons, the neurotic patient is not likely to take kindly to the suggestion that his troubles are due to unconscious forces acting on his thoughts and emotions; and the physician who is considering referring his patient to a psychiatrist may well be pardoned a modicum of hesitancy or even skepticism. For one thing, would it not be asking a great deal of both physician and patient to ask them to accept such a hypothesis as true just because a small number of people say it is? And for another thing, would it not be natural for them to suspect that such a notion might lend itself to charlatanism and exploitation of unethical, unscientific, or otherwise disreputable varieties? That strange ideas might be put into a person's mind?

To these general objections, which may well form the backbone of resistance to a psychiatric referral, I may add others that are individual.

Persons who are well-informed on other matters may still consider referral to a psychiatrist as evidence of "queerness" or even insanity. Twenty or 30 years ago this was almost literally true.

Or, the patient may attach to the word "neurosis" the connotation that if indeed he is neurotic and if his neurosis is found out, he will be set apart from his fellow men as a weakling, one who lacks will power, and a supine seeker after sympathy at the expense of others.

In addition, there are always less conscious objections on the part of the patient, which are not likely to become apparent until after a psychiatric study has been started. By and large, these objections are made up of feelings of guilt that pertain to equally unconscious and forbidden impulses, and the patient, without knowing why, may feel exceedingly anxious about any probing into his inner self. Although both the patient and the referring physician may not have access to this category of objection, it is inevitably present and can be silently acknowledged by the physician.

Even in the case of patients who are willing and even eager for psychiatric referral, one can be almost certain that some of the objections so far mentioned will be present and will continue to require attention after treatment has been started. The psychiatrist, like his medical colleague, appreciates a clear field for treatment, and any help given by the referring physician which removes even some of the more superficial obstructions makes the referral that much better for the patient as well as for the psychiatrist's efforts.

Another and valid difficulty in the way of referral is that psychiatric treatment of neurosis may take a long time and therefore be very expensive for the patient. So far, there is no happy answer to this objection, in spite of the fact that psychiatrists, like other medical men, devote much of their time gratis to persons who cannot pay for treatment, in spite of social efforts such as those made by the Community Chest, and in spite of generous private assistance such as those in Cleveland have been fortunate to receive. However, it is a fact that psychiatric patients, just because they are human, are likely to work harder to get well if with their own efforts they are able to help pay for treatment. I do not mean to imply for a moment that every patient will become a malingerer if given half a chance. I do mean that the great majority of grown-ups are adult enough to feel better about accepting treatment and to make better use of it if they can pay for it themselves. Therefore, in psychiatry, just as in all medicine, there is the universal and paradoxical problem that has yet to be solved: how to provide necessary medical care without lessening the self-respect of the patient or, at the same time, his respect for the help given him.

With a bona fide neurosis a brief therapy usually carries with it a limitation on the degree of cure effected, despite the continuing efforts of psychiatrists to bring about some solution of the problem. Sometimes, however, a great deal of relief from symptoms may result from only brief treatment, and in certain cases it is wise not to carry treatment further. The point is that the length of time required for psychiatric treatment varies and hence treatment may not always be so expensive as the patient at first fears. Whether the treatment is to take a long or a short time can best be determined by the psychiatrist after he has seen the patients and has had an opportunity to form an opinion.

Read before the Fourth Clinical Session of the American Medical Association, Cleveland, Dec. 6, 1950.

There is a good reason why psychiatric treatment with some patients takes a long time. A neurosis existing in a person's mind may be likened to an extensive mass of scar tissue that hampers the functions of a physical part. Scar tissue, as you know, is rigid and inelastic. It has a tendency to constrict and, in so doing, creates greater dysfunction the older it becomes. Any efforts to eradicate the scar and to check its hindrance of healthy functions are time-consuming and repetitious. Sometimes the physician must settle for a partial improvement. In other cases, with great persistence on his part and the determined cooperation of his patient, he can win through to a full return of function.

In spite of the desire to shorten the time required for psychiatric treatment, there is no push button armamentarium at the disposal of the psychiatrist to enable him to go at once to the center of the problem and to dissolve it. The way is blocked by mental defenses that may take months or even years for the most skilled in treatment to surmount, and any method that by-passes these defenses cannot achieve a cure in the full meaning of the word, even if important symptomatic relief is obtained.

Considering all of the objections mentioned so far, the fact that most patients will accept their physician's recommendation and go to a psychiatrist is in large measure a tribute to their confidence in the physician and to his reasonable explanation of their need for this kind of help. There are some patients, of course, whose wish for psychiatric help is already considerable and whose knowledge and sophistication with regard to such help has brought them past their objections. These patients do not present a problem for referral and need not be further considered in this discussion.

However, many patients need some help from the referring physician. In assessing the problem, the physician should consider, first of all, how much the patient wants relief from his symptoms. Are they painfully distressing to the patient, as, for instance, severe anxiety and phobic symptoms are painful in themselves? Or, does the patient really feel that his functioning in life is so severely handicapped that he urgently desires assistance and will work hard to get well? Or, at least do his family and friends find his present state so intolerable that they put firm and consistent pressure on him to seek treatment? The more the patient's and his friends' attitudes toward his symptoms fulfill these criteria, the better is his chance of accepting a psychiatric referral and of being helped once he has begun treatment.

The referring physician, of course, is very familiar with such criteria because he knows that a patient who suffers pain, or whose functioning is impaired by any illness, already is provided with a motive to seek medical care—a motive far more effective in securing cooperation in treatment than any amount of persuasion or coercion from other sources.

The point of this is—and it may often be overlooked by the referring physician—that the same motivations, generally, are necessary for a successful psychiatric referral and successful treatment. Recently a patient of mine who had been in treatment for several years refreshed all of this for me by volunteering, "If I hadn't been desperate to get free of my condition, I'd never have gone through with this treatment and told you the few things about myself that I knew at the beginning and most that I didn't know until later." It was also true that before starting psychiatric treatment, she had tried many other "cures," including a major operation and an imposing list of medicinal preparations. Her symptoms had made her their prisoner from the time she was 14 years old until after she started treatment at 40 years of age.

My patient's comment, by the way, helps to dispose of two other objections popularly held by people: (1) that psychiatric treatment is a pleasurable recreation for wealthy and indolent women, and (2) that just talking about one's self cannot amount to anything.

If the criteria described are not met by the patient and his family, if he can deny or otherwise elude his anxieties, or if he has someone at home who helps him to escape from facing the facts of his illness, the chances for a successful psychiatric referral are slim. If, in addition, the referring physician or the psychiatrist, after repeated attempts, cannot convince him of the realty of his illness and by that approach produce in him a healthy anxiety to be treated, the chances of a successful outcome are remote.

However, it is possible for the physician to increase his patient's objections to a psychiatric referral. If the physician is apologetic; if he says to the patient, "Now, I've examined you thoroughly and find nothing wrong and I think you'd better see a psychiatrist"; if he says or implies, "There's nothing to it; it's all in your head"; if he reveals by word or act that he is cross and out of patience—then the patient will surely feel that his difficulties are abased and that he is being "kicked out." His reaction will be one of resentment, with a proportionate decline in his chances of being helped.

Finally, the physician, however much he may want to avoid arousing the patient's prejudices, should always tell him that the doctor to whom he is being referred is a psychiatrist. Otherwise the patient will feel deceived and his confidence in the new treatment may be destroyed. The psychiatrist himself cannot carry on such a hoax, and for at least one very good reason: if he expects the patient to be honest with him, he must be no less honest with the patient.

In preparing the patient for psychiatric referral, the physician should, first of all, do what he would naturally do—take a history and make an adequate physical examination. If these point to a psychological disturbance, he can ask the patient to tell more about himself, explaining to the patient that the symptoms from which he suffers suggest there may be things in his life which are bothering him. It is better to avoid the leading question. For instance, instead of asking directly, "Is your marriage a happy one?" the physician might say, "Can you tell me a little more about your marriage?" In this way the physician can imply that what has been told so far is not enough to explain the symptoms, thereby putting a firm but gentle pressure on the patient to reveal more and more until the general nature, at least, of the problem is clear enough to be understood.

However, an otherwise astute physician will sometimes make the mistake of taking too quick an approach to a touchy problem which is obvious to him but not to the patient. If the first question has revealed a serious

marital problem, the best tactic is to ask the patient casually whether he thinks there might be a difficulty of this kind. The physician should accept a quick and vigorous denial instead of immediately confronting the patient with all the evidence contrary to the patient's opinion. Unless the physician desists for the time being at this point, he may so alarm the patient that later efforts by himself (or by the psychiatrist) may be of no avail. Subsequetly the physician may return to the topic and find the patient ready to admit the problem, the bond of confidence presumably having grown stronger.

If subsequent attempts fail, however, the physician may elect to show the patient by way of everyday examples, and without touching on the serious problem observed, how emotions can produce changes in the body's functions. The purpose of such an approach is to give the patient some intellectual conviction about his need for psychiatric treatment, and it may succeed at least to the point where the patient is willing to "try out" a psychiatrist. Indeed, a "try-it-and-see" approach often makes it easier for the patient to get under way.

Sooner or later the patient will interpose some of the objections I have been considering, and his physician should encourage him to tell exactly how he feels about going to a psychiatrist so that factual explanations may be offered in an attempt to undo fear and prejudice. A discussion of this kind may need to be repeated more than once, and the physician should not relinquish his goal of referral simply because the first time he broaches the subject to the patient, he meets with a tenuous or even a flat rejection. Time, patience, and reasonable persistence will eventually succeed with many patients, whose distressing symptoms will also influence them to seek relief.

There are some patients, however, who are so afraid of psychiatry or so prejudiced against it that referral becomes impossible. Whether a patient will eventually accept psychiatric referral can be determined only after reasonable efforts have been made to persuade him. It is better for the physician to desist than to threaten the patient or to force him to go to a psychiatrist against his will—an imposition resented by any adult and one that inevitably boomerangs against successful treatment.

Whether the patient eventually accepts psychiatric referral or not, the physician should be firm about maintaining the need for this kind of help from the time he first recommends that the patient see a psychiatrist until efforts at referral have either succeeded or failed. If, instead, the physician goes against his better judgment and gives in to the patient's demands for further studies or other kinds of therapy, his position is so weakened by the patient's knowledge of his wavering attitude that failure will probably result. The physician is aware, often enough, of the patient's desire to have a physical instead of an emotional cause for his symptoms. Moreover, it is understandable that the physician, not wanting to anger or to alarm his patient, may be tempted to follow a course that avoids the issue; but such a policy is inevitably a shortsighted one. If the physician gives in to the patient and repeats physical measures, even though he does so against his better judgment, he may incur the responsibility of helping to "fix" the patient's neurosis so that psychiatric treatment becomes more difficult or even impossible.

Sometimes the physician may reason that if the patient refuses psychiatric referral and that if he (the physician) does not "do something," the patient may resort to quacks and nostrums, which could do more harm than good. Such an argument has, of course, a realistic side. The physician may rightly point out that a policy of expediency is under his control and that he will at least avoid doing things that are harmful to the patient. However, in deciding upon such a policy, he should take into account the risks already mentioned, plus the fact that most patients who are made obdurate by their fears or prejudices are likely to be unreasonable and difficult to manage in other respects. All too often the physician comes to regret such a policy as he finds himself tiring of the never-ending demands made on him by the patient or hoping that the patient will stay away for a while or perhaps stop coming altogether. Physicians who have had this experience are likely to say, "I don't see how you fellows stand it; it would drive me crazy to be a psychiatrist." Patients are quick to sense their physician's attitude toward them, and when they sense that it is an adverse one, they may more or less consciously punish the physician by increasing their demands on him or by going to someone else. Because the patient is not qualified to assess professional skill, the next person whom he consults may be someone unfamiliar with medical ethics.

In conclusion, it is apparent that this discussion has not touched on the problem of what the physician can do himself in the way of psychotherapy when no psychiatrist or psychiatric clinic is available, or when other circumstances make a psychiatric referral impossible. That is a topic about which much has been written and taught that is good—and much, too, that is sometimes confusing. However, the fact is that psychotherapy has already started when a patient comes to his physician for help, and when the physician has decided that a psychiatric referral is indicated and so advises him.

University Hospitals.

Background of U. S. Scientists.—A statistical analysis that took some five years produced several significant surprises. . . . The first surprise is that small liberal arts colleges are far and away the most productive sources of future scientists among U. S. institutions. Of the 50 leading institutions in this respect (i. e., those that turn out the largest proportion of graduates who become scientists), 39 are small liberal arts colleges. Only three large universities appear on this list of leaders, and only two technological institutions; the others among the 50 are three state agricultural schools and three small universities that lean toward technology. . . . The second striking fact, which may surprise some, is that the institutions which lead in the production of scientists are mainly concentrated in the Middle West. That this region is particularly productive of scientists is confirmed by a study of all the 500 institutions for which indexes were computed. In that ranking the Middle West and the Pacific coast lead the nation, with the Middle Atlantic States and New England next and the South last. . . . In the production of graduates entering some other professions, such as the law, the ranking is quite different. According to a survey made before World War II, the U. S. Northeast is the region most productive of future lawyers.—H. B. Goodrich, R. H. Knapp, and G. A. W. Boehm, the Origins of U. S. Scientists, *Scientific American*, July, 1951.

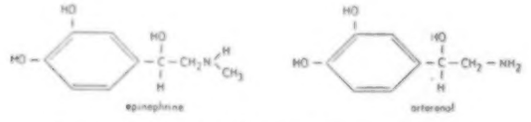
CLINICAL NOTES

TREATMENT OF SHOCK WITH ARTERENOL

Norton M. Luger, M.D.
Allen Kleiman, M.D.
and
Rudolph E. Fremont, M.D., Staten Island, N. Y.

The recent advances in the understanding of the mechanism of shock and its treatment have improved the prognosis of patients in this condition. Nevertheless, the treatment leaves much to be desired. Recent contributions to the study of irreversible shock, as well as clinical experience, have demonstrated that currently available therapy (i. e., various forms of fluid replacement) may be fruitless in advanced or prolonged shock.

The investigations by Goldenberg and his associates [1] of the action of arterenol (nor-epinephrine) demonstrated that this compound increased the blood pressure very markedly by increasing peripheral resistance, without the other effects of epinephrine. Arterenol is related to epinephrine as indicated in the structural formulas. It was thought, therefore, that it might be of some value in the treatment of shock.



Structural formulas of epinephrine and arterenol.

We have recently had the opportunity to observe the action of arterenol in a patient in profound, prolonged shock from a perforated gastric ulcer. The results were sufficiently dramatic to warrant their being reported.

REPORT OF A CASE

A 73 year old white man was admitted to the hospital on Feb. 9, 1950, complaining of indefinite midepigastric pain. According to his history, substernal burning associated with retching had developed four days prior to admission; this gradually disappeared and 24 hours before admission was replaced by a sharp midepigastric pain, which persisted until the patient was admitted to the hospital. Past history was essentially negative for gastrointestinal or cardiovascular symptoms.

Physical examination revealed an elderly white man without obtainable pulse or blood pressure, whose skin was cold, clammy and cyanotic. The lung fields were clear. The heart sounds were poorly audible. The abdomen was distended and tympanitic and apparently contained fluid. There was no spasm, nor was there any audible peristalsis. Roentgenograms of the abdomen revealed intraperitoneal air and fluid. The results of blood studies revealed 14,800 white blood cells, with 80 per cent neutrophils (8 per cent band forms), 6,100,000 red blood cells and a hematocrit value of 58%. The electrocardiogram was interpreted as disclosing only sinus tachycardia and frequent ventricular extrasystoles.

Therapy utilizing nasal oxygen, 500 cc. of whole blood, 500 cc. of plasma, 1,000 cc. of 5 per cent dextrose in saline and 250 cc. of 5 per cent dextrose in distilled water was instituted, but after three hours the pulse rate and blood pressure were still not obtainable and the patient's condition had not noticeably improved.

An infusion of arterenol (2 mg. per liter) was begun at the rate of 100 drops a minute, and two minutes later the patient's pulse was strong and his blood pressure, obtained for the first time, was 140/90. It reached 170/110 seven minutes after the start of the infusion, at which time the patient complained of a headache. The infusion was then slowed to 35 drops a minute, and the blood pressure dropped to 130/80, with relief of the headache. It was maintained at this level by variation of the rate of inflow according to the change in blood pressure.

The patient was observed for an additional four hours, during which time his general condition improved so that laparotomy became possible. A perforation found on the anterior surface of the lesser curvature of the stomach was closed. Two thousand cubic centimeters of yellow serous material (culture of which yielded Streptococcus viridans) and a large amount of air was evacuated from the peritoneal cavity. During the operative procedure the patient received an additional 500 cc. of whole blood, 500 cc. of plasma and 1,000 cc. of 5 per cent dextrose in saline. The use of the arterenol solution, which was administered throughout the operation, was discontinued at the completion of the operative procedure. The patient's blood pressure promptly fell and remained unobtainable for seven minutes, with the pulse becoming weaker. Resuming the arterenol infusion caused a prompt rise of the blood pressure. Four hours postoperatively, with arterenol still being infused at the rate of 30 drops a minute, the blood pressure was 122/78 and the skin was warm. Ten hours postoperatively the infusion was stopped, and again the blood pressure fell abruptly and became unobtainable, but on reinstitution of therapy with arterenol infusion it rose promptly to measurable levels. The infusion was continued at about the same rate for a period of 32 hours postoperatively (38 hours after institution of therapy) and was then discontinued. The patient's blood pressure fell from 138/90 to 90/60 within three to four minutes, and his skin became somewhat cool and moist. The blood pressure stabilized at this level, then gradually rose to 110/70 within an hour and remained at normal levels thereafter. During the first two postoperative days, the patient was maintained in fluid balance with plasma, blood, saline and Ringer's solution. Blood chloride levels were normal throughout the postoperative period and the hematocrit reading declined gradually from 58 preoperatively to 52 in 24 hours and then to normal values in 72 hours postoperatively. The patient has had a satisfactory recovery from his perforation and laparotomy.

COMMENT

Several problems confronted us in this case. The patient was seen by members of the medical and surgical services, and there was general agreement as to the hopeless prognosis because of the patient's age (73 years), the time elapsed since perforation (over 24 hours) and the profound state of shock. McElhinney and Holzer [2] report 100 per cent mortality in 11 patients who had perforation over 12 hours and systolic pressures under 100 mm. of mercury on admission. Only five of these 11 patients were able to undergo operation, and, as noted, all died. Similar experiences have been reported from other clinics.[3] The patient's condition was such that surgical intervention was impossible, and his situation seemed hopeless. The first result of the treatment was, however, an immediate and sustained improvement in the general condition so that laparotomy could be performed.

From the Medical and Surgical Services, Veterans Administration Hospital.

Sponsored by the Veterans Administration and published with the approval of the Chief Medical Director. The opinions and views set forth in this article are those of the writers and are not necessarily to be considered as reflecting the policies of the Veterans Administration.

The Department of Medical Research of Winthrop-Stearns, Inc., supplied the arterenol used in this work.

1. Goldenberg, M.; Pines, K. L.; Baldwin, E. de F.; Greene, D. G., and Roh, C. E.: Hemodynamic Response of Man to Nor-Epinephrine and Epinephrine and Its Relation to Problem of Hypertension, Am. J. Med. 5: 792 (Dec.) 1948.

2. McElhinney, W. T., and Holzer, C. E., Jr.: Factors Influencing Mortality from Acute Perforated Peptic Ulcers, Surg., Gynec. & Obst. 87: 85 (July) 1948.

3. DeBakey, M.: Acute Perforated Gastroduodenal Ulceration: Statistical Analysis and Review of Literature, Surgery 8: 852 (Nov.) 1940.

The dosage of arterenol administered was calculated roughly on the basis of 0.2 micrograms per kilogram of body weight a minute, as suggested by Goldenberg,[1] and it was administered by constant intravenous drip. The concentration of solution was 2 mg. per liter or 2 micrograms per cubic centimeter. The dosage administered was only approximate, since our infusion set was not calibrated. We measured the number of drops given per minute and regulated the dose by regulating the rate of infusion, being guided by the level of arterial pressure.

Occasionally it was necessary to increase the rate of flow because of a spontaneous drop in tension. It should be noted that when the infusion was stopped on two occasions, the blood pressure dropped rapidly to unobtainable levels. This observation confirms that of others,[4] that the action of arterenol is very short-lived and that this fact is in part responsible for the ease with which its effect can be controlled.

During these changes in blood pressure, the pulse rate remained fairly constant. While this is contrary to previous observations, our patient was in a complicated physiological state not comparable to that in the subjects previously studied by others. The constancy of the pulse rate of between 120 and 130 beats a minute, whether or not the patient appeared to be in shock, was one of our guiding signs as to his true state. The fall of the pulse rate to 100 suggested that improvement was taking place and accordingly that it would be safe to discontinue the infusion. This proved to be correct.

Throughout the operation and for 32 hours thereafter, it was possible to maintain the patient's blood pressure at normal levels until there was reversal of whatever vasodepressor mechanisms were active during the period of shock. It is important that so long as the blood pressure was maintained at normal levels this man did not have any of the symptoms usually associated with shock. It should also be noted that within the first 24 hours after operation sufficient return of spontaneous vasomotor tone had not occurred to permit cessation of the medication. After 38 hours, when the pulse rate had slowed to 100, it was possible to stop the infusion. Apparently then, arterenol does provide vasomotor tone in the shock patient and does not prevent the repair of the normal vasomotor mechanisms following shock.

Goldenberg [1] has noted that after the intravenous injection of arterenol there is an elevation of the blood pressure, systolic and diastolic, with an over-all increase in peripheral resistance. Concurrent with these changes, there is a slowing of the pulse rate. The cardiac output is not significantly increased.

In shock, during the early phases, there is an over-all increase in vascular tonus, which becomes progressively impaired until in the last, or irreversible, phase there is a loss of small vessel tone and pooling of blood in these channels.[5] Under these conditions, the administration of arterenol may be a rational therapy for shock. Accordingly, Goldenberg,[4b] in a preliminary report, has cited the use of this compound in the hypotension that occasionally occurs after thoracolumbar sympathectomy and also in two cases of hemorrhagic shock, with good results.

From our single experience, it appears that this compound may well turn out to be extremely useful in shock. Its action is prompt, predictable and easily controlled. Its value in various clinical types of shock is currently under investigation.

A word of caution is necessary. Because of the prompt response to arterenol, the cause of the shock must be ascertained prior to treatment. Under arterenol therapy, a concealed hemorrhage would continue unchecked and might be aggravated by the drug.

SUMMARY

A patient with perforated peptic ulcer, who was inoperable because of profound shock, was treated with arterenol (nor-epinephrine). The shock state was rapidly relieved by this drug so that laparotomy and repair became possible. This compound has a marked but easily controllable pressor effect, which proved, in this case, to be lifesaving. It seems a powerful addition to therapy.

Veterans Administration Hospital, Brooklyn (Dr. Luger).
Veterans Administration Hospital, Albany, N. Y. (Dr. Fremont).

4. (*a*) Goldenberg and others.[1] (*b*) Goldenberg, M.; Apgar, V.; Deterling, R. A., Jr., and Pines, K. L.: Nor-Epinephrine (Arterenol, Sympathin N) as Pressor Drug, J. A. M. A. **14**: 776 (July 2) 1949.

5. Zweifach, B. W.; Chambers, R.; Lee, R. E., and Hyman, C.: Reactions of Peripheral Blood Vessels in Experimental Hemorrhage, Ann. New York Acad. Sc. **49**: 553 (May 11) 1948.

EVALUATION OF CLINICAL METHODS IN GASTROINTESTINAL DISEASE

LIVER FUNCTION TESTS IN PEPTIC ULCER

A. Allen Goldbloom, M.D.
Abraham Lieberson, M.D.
and
Aaron Silver, M.D., New York

There has been increasing mention in the literature of the occurrence of liver damage in peptic ulcer, as shown experimentally,[1] pathologically,[2] and clinically by biopsy [3] and liver-function tests.[4] This important question of the frequency of occurrence of liver damage in peptic ulcer concerns all of us not only from the diagnostic but also from the therapeutic and preventive points of view. It particularly concerns my co-authors and me in our investigation [5] of a modern routine for

From Drs. Goldbloom, Lieberson, and Silver, the Medical Services of Beth Israel Hospital and the New York Medical College, Flower and Fifth Avenue Hospitals, Metropolitan Hospital Division (Dr. Goldbloom).

1. Reymont, A.: A Study of Liver Function in Experimental "Peptic Ulcer," Am. J. Digest. Dis. **7**: 65, 1940. Gandy, C., cited by Jergesen, F. H., and Simonds, S. P.: Blood Lipase in Patients with Peptic Ulcer, J. Lab. & Clin. Med. **19**: 1054, 1934.

2. (*a*) Jergesen, F. H., and Simonds, S. P.: Blood Lipase in Patients with Peptic Ulcer, J. Lab & Clin. Med. **19**: 1054, 1934. (*b*) Gordon, J. S., Jr., and Manning, J. J.: Autopsy Survey of Gastro-Duodenal Ulcers in Philadelphia General Hospital 1920-1937, Am. J. M. Sc. **202**: 423, 1941. (*c*) Vilardell, J., and Llort, M. C.: Estudio histológico del hígado (por biopsia) en las colecistitis y ulcus gastroduodenal, Rev. méd. Barcelona **17**: 325, 1932.

3. (*a*) Schnitker, M. A., and Hass, G. M.: Histologic Study of Liver in Patients Affected with Peptic Ulcer, Am. J. Digest. Dis. **1**: 537, 1934. (*b*) Mateer, J. G.; Hartman, F. W.; Blatz, J. I.; Fallis, L. D.; McGraw, A. B., and Steele, H. H.: Combined Liver Biopsy and Liver Function Study in 132 Cases of Cholelithiasis and 31 Cases of Peptic Ulcer (Operated Cases), Gastroenterology **11**: 284, 1948. (*c*) Berg, B. N., and Jobling, J. W.: Biliary and Hepatic Factors in Peptic Ulcer, Arch. Surg. **20**: 997 (June) 1930.

the complete study of a patient with gastrointestinal disease. If liver damage is a frequent accompaniment of peptic ulcer, liver function studies and perhaps even liver biopsies should be included in the routine study of peptic ulcer cases.

To help determine just how important a role liver damage plays in peptic ulcer, we reviewed the last 70 consecutive cases of peptic ulcer on the medical wards of Beth Israel and Metropolitan Hospitals, New York City.

The clinical diagnosis of peptic ulcer was confirmed in each case by an X-ray showing a deformed duodenum. The study of liver function in most patients included icteric indexes, cephalin-cholesterol flocculation, thymol turbidity, sulfobromophthalein (bromsulphalein®) sodium tests, cholesterol and cholesterol ester determinations, proteins, and albumin-globulin ratios. An icteric index above 7 was considered abnormal, as were a cephalin-cholesterol flocculation of 3 + or higher in 48 hr.; thymal turbidity above 3.5 units; a total cholesterol level of above 250, a cholesterol ester ratio below 0.50; a total protein value below 5.2 gm. and an albumin-globulin ratio below 1.3:1. The results of the tests of the 70 peptic ulcer patients can be briefly summarized as follows:

The icteric index averaged 3.8. It was above the normal limit of 7 in only two cases. One of these patients, although considered clinically to have an uncomplicated peptic ulcer, was shown at operation to have an obstructive lesion penetrating into the pancreas. The mild degree of icterus (8.3) present was probably connected with this complication. The other patient had gallstones as well as duodenal and gastric ulcers. The elevated icteric index (8.1) and elevated cholesterol (257) were more likely due to the cholelithiasis and gall bladder disturbances than to the ulcers.

The cephalin-cholesterol flocculation tests averaged 1 + to 2 + and were abnormal in only six cases. The ulcer was complicated in five of these. The cephalin-cholesterol flocculation test was elevated (3 +) in only one patient with uncomplicated peptic ulcer.

The thymol turbidity tests averaged 2.0 units. It was above the normal limit of 3.5 units in three cases. In only one of these cases was the peptic ulcer uncomplicated.

The sulfobromophthalein tests, total cholesterol, cholesterol esters, total proteins, and albumin and globulin ratios were essentially normal in every case.

Rafsky and others [4i] found hypoproteinemia in 21 of their 50 peptic ulcer cases. They considered the total serum proteins below 6.0 gm. as abnormal. Their results would be much closer to ours if they accepted our figure of 5.3 gm. as the lower limit of normal.

The results of our tests show little or no impairment of liver function in peptic ulcer, whether the test be for the excretory, metabolic or inflammatory functions. This is in direct contrast to the investigations of Mateer and others,[3b] who frequently found liver damage in peptic ulcer patients, especially when pathological studies (punch biopsy) supplemented the liver-function tests. Mateer's 31 cases were all operative, and the changes seen by liver biopsy at operation may have been due to anoxia of the anesthesia, as is suggested by the studies of liver damage in shock and anoxia that Gillman and Gillman [6] report on.

It is also important to differentiate the noncomplicated peptic ulcer cases of our medical practice from the complicated surgical cases that Mateer reported. By "complicated" is meant a chronic ulcer that may have penetrated or formed adhesions to the surrounding organs, or may have produced secondary involvement of other organs such as the gall bladder. In such circumstances one realizes that the liver may readily be affected by ascending infection or secondary inflammatory change. Also, in a case of stenosing peptic ulcer such secondary hepatic inflammatory changes may result. In a case of simple, uncomplicated peptic ulcer there is much less liklihood of concomitant or resultant liver damage.

SUMMARY AND CONCLUSIONS

Some observers have encountered liver changes in cases of peptic ulcer. However no distinction was made between complicated and uncomplicated peptic ulcer.

Chronic peptic ulcers of the complicated type may occasionally produce secondary effects upon the liver, but simple noncomplicated peptic ulcers generally will produce no change upon the liver, as shown by liver function tests.

Liver function tests are not essential to the complete routine study of peptic ulcer cases.

Two E. 95th St.

4. (*a*) Gordon and Manning,[2b] Berg and Jobling,[3c] (*b*) Kalk, H.: Das Geschwür des Magens und Zwölffingerdarmes und das Geschwür des operierten Magens, Berlin, Urban & Schwarzenberg, 1931. (*c*) Sjöström, P.: Der Citratgehalt im Blutserum als Diagnosticum bei Krankheiten der Leber und der Gallenwege: Eine methodologiscne, tierexperimentelle und klinische Studie, Acta chir. scandinav, supp. 49, p. 1, 1937. (*d*) Marino, S., and Saladino, A.: La polipeptidemia nei portatori di ulcera gastroduodenale, Arch. farmacol. sper. **63**: 161, 1937. (*e*) Ask-Upmark, E.: Further Observations on Pathogenesis of Peptic Ulcer, Acta med. Scandinav. **103**: 280, 1940. On Presence of Deficiency Factor in Pathogenesis of Peptic Ulcer, Acta chir. scandinav. **84**: 55, 1940. (*f*) Meranze, D. R.; Likoff, W. B., and Schneeberg, N. G.: Blood Galactose Tolerance Test, J. Clin. Path. **12**: 216, 1942. (*g*) Morrison, L. M.: Liver Dysfunction in Peptic Ulcer, Rev. Gastroenterol. **9**: 448, 1942. (*h*) Pollak, H.: Hepatic Dysfunction in Peptic Ulcer: Observations with the Hippuric-Acid Test, Lancet **2**: 131, 1947. (*i*) Rafsky, H. A.; Krieger, C. I., and Honig, L. J.: Protein Studies in Peptic Ulcer, Gastroenterology **16**: 358, 1950.

5. Goldbloom, A. A., and Lieberson, A.: Evaluation of Clinical Methods in Gastro-Intestinal Disease: I. Role of Anamnesis, Age, Sex, Season and Gastric Acidity in Peptic Ulcer, Am. J. Digest. Dis. **16**: 290, 1949. Goldbloom, A. A.; Lieberson, A., and Stamm, J. L.: Evaluation of Clinical Methods in Gastro-Intestinal Disease: II. Cholesterol Determinations in Peptic Ulcer, ibid. **16**: 313, 1949.

6. Gillman, J., and Gillman, T.: Anoxia and the Liver with Special Reference to Shock and Chronic Malnutrition, Am. J. Digest. Dis. **16**: 348, 1949.

TOXIC REACTIONS TO MERALLURIDE INJECTION (MERCUHYDRIN® SODIUM SOLUTION)

Gerald A. Reeves, M.D., Topeka, Kan.

A wide variety of toxic reactions following the use of mercurial diuretics has been reported. Although most of these reactions have been of a mild nature and have occurred infrequently in relation to the widespread use

Resident in Internal Medicine, Medical Service, Winter Veterans Administration Hospital.

Sponsored by the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the author are the result of his own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

of mercurial diuretics, a number of fatal reactions are now well documented. With the introduction of locally less irritating preparations, the intramuscular route of administration has proved to be less toxic. Meralluride injection (mercuhydrin® sodium solution) is one such preparation in wide clinical use. Reports of nine cases of untoward reactions to meralluride injection were found in the literature. These included one case of acute dehydration,[1] three fatal cases of toxic nephrosis,[2] and five cases with reactions of an allergic nature.[3]

The following case is reported as another instance of severe hypersensitivity to meralluride injection, with subsequent successful use of mercaptomerin (thiomerin®) sodium.

REPORT OF A CASE

A 53 year old white male auditor was admitted to Winter Veterans Administration Hospital because of marked pulmonary congestion and mild peripheral edema due to long standing hypertensive cardiovascular disease. His blood pressure on admission was 156 mm. systolic and 110 mm. diastolic. Admission blood counts were normal, but the corrected sedimentation rate (Wintrobe method) was elevated to 24 mm. per hour. Repeated urinalyses were normal, and concentrations to specific gravity 1.030 were reached on routine specimens. Nonprotein nitrogen was 40 mg. per 100 cc. An electrocardiogram revealed left bundle branch block.

The patient was placed on strict bed rest and a low salt diet. His digitalis dosage was increased, and he was given intramuscular injections of 2 cc. of meralluride daily at 9:00 a. m. The edema improved. After the eleventh meralluride injection, the patient complained of vague retrosternal pain, and his temperature rose to 100.6 F. by 4:00 p. m. and 101.6 F. at 8:00 p. m. The following morning he was afebrile and asymptomatic. His twelfth injection was given at the usual time. A sudden severe shaking chill began at 3:30 p. m., followed by fever to 103 F. Again the following morning he was afebrile but complained of weakness and aching in the thigh muscles. The leukocyte count that morning was 5,300, with a normal differential count. The urine was normal and the nonprotein nitrogen 47 mg. per 100 cc. He received no meralluride injection that day and remained afebrile. The next day, his fourteenth in the hospital, he received 1 cc. of meralluride intramuscularly at 9:00 a. m. Within one hour he complained of intense burning of the palms and subungual regions of the fingers. Generalized aching in the back, thighs and legs followed. By 1:00 p. m. he was in another shaking chill, and at 4:00 p. m. his temperature was 103.8 F., his pulse rate 104, and his blood pressure 98 mm. systolic and 70 mm. diastolic. He appeared cyanotic and was very apprehensive. Morphine and oxygen were administered. The temperature returned to normal by the following noon, and only weakness remained. Urinalysis this day showed 1 + albumin and 1 to 3 hyaline casts per high power field in the centrifuged sediment. Subsequent urinalyses were normal. The patient made a gradual recovery, complicated by pulmonary infarction on the twenty-fifth hospital day, and was discharged after 88 days. No further meralluride injection was given.

He was readmitted four and one-half months later, again in moderate pulmonary congestion and minimal peripheral edema. Along with his previous nonmercurial therapy, a trial dose of 0.1 cc. of mercaptomerin sodium was administered subcutaneously without reaction. Then 1 cc. of mercaptomerin sodium was given subcutaneously daily for a week with no ill effects. Again the edema improved.

COMMENT

In this case, as in several others recorded in the literature, premonitory symptoms of a milder nature after injection of the mercurial diuretic were present prior to the severe reaction and recognition of the hypersensitivity. Earlier recognition hinges on one's keeping in mind the possibility of hypersensitivity to mercurial diuretics when dealing with unexpected febrile reactions in patients receiving such diuretics. This patient's first two reactions posed a diagnostic problem—pneumonia, pulmonary embolism, and myocardial infarction being considered.

SUMMARY

A patient displaying severe toxic reactions to meralluride injection did not display similar reactions to mercaptomerin sodium.

1. Rechtschaffen, J. S., and Gittler, R. D.: Acute Dehydration Due to a Mercurial Diuretic, J. A. M. A. **144**:237 (Sept. 16) 1950.

2. (*a*) Bruno, M. S.: Fatal Toxic Nephrosis Following the Administration of Mercurial Diuretics, New England J. Med. **239**:769 (Nov. 18) 1948. (*b*) Wallner, A., and Herman, L.: Mercurial Diuretics: Some Hazards of Mercuhydrin, Ann. Int. Med. **32**:1190 (June) 1950. (*c*) Greenberg, D., and Feibush, J. S.: Toxic Nephrosis from Organic Mercurial Diuretics, New York State J. Med. **49**:2319 (Oct. 1) 1949.

3. Wallner and Herman.[2b] Modell, W.; Gold, H., and Clarke, D. A.: Quantitative Observations of Mercuhydrin and Mercupurin, J. Pharmacol. & Exper. Therap. **84**:284 (July) 1945. Gelfand, M. L.: Hypersensitivity to Mercuhydrin with Positive Skin Test, Abstracts, J. Allergy **20**:77 (Jan.) 1949. Fineman, A. H., and Rosenberg, S. J.: Mercuhydrin Sensitivity: Report of a Case, Ann. Allergy **8**:80 (Jan-Feb.) 1950. Shatan, H.: The Toxicity of Mercurial Diuretics, Treat. Serv. Bull. **5**:194 (April) 1950.

UREMIA COMPLICATING LEUKEMIA CHEMOTHERAPY

REPORT OF A CASE TREATED WITH TRIETHYLENE MELAMINE

Sheldon C. Kravitz, M.D., Henry D. Diamond, M.D.
and
Lloyd F. Craver, M.D., New York

The increase in endogenous uric acid production in leukemic patients has long been a fact of considerable interest. The combination of even further production of endogenous uric acid induced by therapy and renal insufficiency is one which has been observed to lead to serious and, at times, fatal complications.[1] With newer chemotherapeutic agents in use for the treatment of the lymphomas and leukemias, drugs which are capable of depressing the white blood cell count more rapidly than x-rays, there is need for increased awareness of the possibility of uric acid obstruction of the urinary tract with subsequent uremia. We believe the following to be a case in point.

REPORT OF A CASE

C. M., a white woman aged 54, was first seen in the Diagnostic Clinic of Memorial Hospital on May 17, 1949. She gave a history of abdominal pain and progressive weight loss of one and one-half years' duration. In February, 1948, she had been hospitalized elsewhere and was found to have hepatosplenomegaly, marked leukocytosis, and anemia. A diagnosis of chronic myelogenous leukemia was made, and the patient was subsequently treated with blood transfusions, a short trial of urethan, and, finally, x-ray treatments to the spleen. Because of progression of her symptoms, she was referred to Memorial Hospital, where the diagnosis was confirmed. An incidental finding on rectal examination was a rectal polyp which was examined histopathologically and proved to be adenocarcinoma of the rectum, grade II. This was first treated with high voltage x-rays. Following this, the leukemia was treated with x-rays to the spleen, and the patient was improved sufficiently to permit an operation for the rectal

From the Medical Neoplasia Service of the Memorial Center for Cancer and Allied Diseases.

1. Merrill, D.: Uremia Following X-Ray Therapy in Leukemia, New England J. Med. **222**: 94, 1940. Lear, H., and Oppenheimer, G. D.: Anuria Following Radiation Therapy in Leukemia, J. A. M. A. **143**: 806 (July 1) 1950.

cancer. On July 2, 1949, an anterior resection of the rectum was carried out by Dr. Lucille Loseke, assistant attending surgeon on the Rectal Service of Memorial Hospital, and a primary end-to-end anastomosis of the large bowel was performed. The patient was discharged in relatively good condition on Aug. 20, 1949, one month postoperatively.

In the outpatient department she required x-ray treatments to the spleen on two separate occasions. But in May, 1950, the liver and spleen became tremendously enlarged, and this was associated with loss of appetite, chills and fever. Readmitted to Memorial Hospital on May 20, 1950, the patient appeared chronically and severely ill. Her spleen filled the entire left side of her abdomen, extending down to the inguinal ligament and reaching 3 cm. to the right of the umbilicus. Her liver was palpable 6 cm. below the right costal margin. Her hemoglobin value was 8.6 gm., red blood cell count 3,100,000 per cubic millimeter, white blood cell count 132,000 per cubic millimeter, and platelets 99,000 per cubic millimeter. Her bone marrow revealed the typical picture of chronic myelogenous leukemia with depressed erythroid activity. Urinalysis was essentially unremarkable. Blood urea nitrogen was 14 mg. per 100 cc.

The patient was given 1000 cc. of packed red blood cells which brought her hemoglobin value up to 11.3 gm. On four successive days, from May 28 to May 31, she was given 5 mg. of triethylene melamine (TEM) by oral administration (fig. 1). On the third day of therapy the patient began to complain of lower abdominal cramps, bladder urgency, dysuria, and oliguria. Her temperature was elevated to 102 F. Her white blood cell count fell precipitously from the pretreatment level of 170,000 to 35,800 per cubic millimeter five days after the first dose of triethylene melamine. The patient was catheterized and found to have hematuria and uric acid crystalluria. Intravenous pylograms showed no concentration of dye on either side. On June 2, 1950, the patient was examined by cystoscope and "sand" was seen exuding from the right ureteral orifice. A catheter could not be passed up the right ureter. One was passed up the left

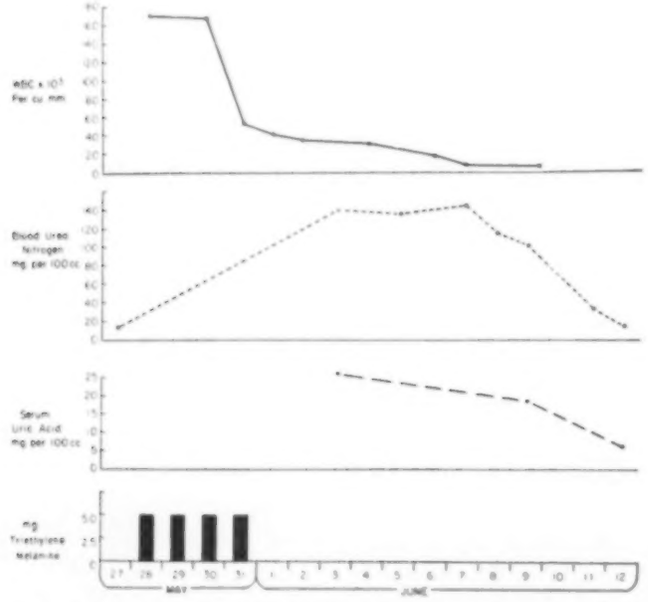


Fig. 1.—Chart showing the fall in the white blood cell count, blood urea nitrogen, and serum uric acid after administration of triethylene melamine.

ureter and a retrograde pyelogram revealed a hydronephrotic left kidney. Blood urea nitrogen drawn the following day was found to be 140 mg. per 100 cc. and the serum uric acid was 26 mg. per 100 cc. Despite intravenous administration of fluids and alkalinizing solutions, oliguria and azotemia persisted. On June 6, 1950, the patient was again examined by cystocope and the uric acid crystals could be seen to swirl as distilled water was flushed into the bladder. This time it was possible to catheterize both ureters and the catheters were left indwelling. (The cystoscopies were performed by Drs. Willet Whitmore and Carl Schmidlapp, assistant attending surgeons on the Urological Service.) This was attended by a good diuresis, and in 11 days, during which time fluids were forced and the urine kept alkaline by oral administration of sodium bicarbonate, the patient came out of uremia. Her blood urea nitrogen fell to 19 mg. per 100 cc. and her serum uric acid to 6.3 mg. per 100 cc. Despite the fact

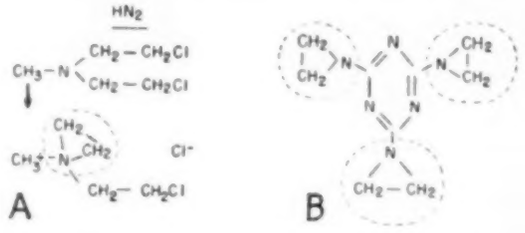


Fig. 2.—Relationship between HN_2 and triethylene melamine. *A*, ethylenimonium transformation of HN_2. *B*, triethylene melamine. (Diagram shown through the courtesy of Dr. David Karnofsky.)

that she received no more triethylene melamine, her white blood cell count continued to fall progressively until it reached 5,400 per cubic millimeter. The fall in the white blood cell count was associated with a profound decrease in the size of the spleen to 10 cm. below the left costal margin from the previously described dimensions. After the recovery from her uremia, the patient improved symptomatically and was discharged on June 23, 1950, with a hemoglobin value of 13.5 gm., white blood cell count of 12,000 per cubic millimeter, blood urea nitrogen of 9 mg. per 100 cc., and a serum uric acid of 4.9 mg. per 100 cc. Her spleen was at the level of the umbilicus. Her urinary output was satisfactory.

The rest of the course of this patient is not pertinent to this case report. In brief, she was subsequently readmitted to Memorial Hospital on Aug. 10, 1950, for relapse of her leukemia, and died on Sept. 4, 1950, having had an attack of acute pulmonary edema three days prior to her death. Permission for an autopsy was not obtained.

COMMENT

Triethylene melamine is one of the compounds used in screening tests for effectiveness against the growth of animal tumors, by the Chemotherapy Division of the Sloan-Kettering Institute of the Memorial Cancer Center. The early results of the use of this drug were reported in a preliminary communication by Rhoads and others.[2] A more comprehensive report by Karnofsky and his associates has recently been published.[3] (This case is included in their series.)

Triethylene melamine is thought to be chemically related to nitrogen mustard (HN_2) by virtue of the ethylenimonium transformation that HN_2 undergoes in the body (fig. 2). It is the ethylene-imine ring which is thought to be the active grouping in both compounds. Triethylene melamine has been found to have actions similar to those seen with HN_2 in much the same range of diseases. The advantages of triethylene melamine are that it can be given by oral administration, smaller amounts of the drug can be used, and fewer unpleasant side effects of the kind obtained with HN_2 are present. Bone marrow depression can be serious with both drugs.

Triethylene melamine was chosen for use in this case because, despite recent x-ray treatment to the spleen, the disease was rapidly progressive, manifesting marked constitutional symptoms, and HN_2 seemed to be a dras-

2. Rhoads, C. P.; Karnofsky, D. A.; Burchenal, J. H., and Craver, L. F.: Triethylenemelamine in the Treatment of Hodgkin's Disease and Allied Neoplasms, read before the Association of American Physicians, Atlantic City, N. J., May 2-3, 1950.

3. Karnofsky, D. A.; Burchenal, J. H.; Armistead, G. C., Jr.; Southam, C. M.; Bernstein, J. L.; Craver, L. F., and Rhoads, C. P.: Triethylene Melamine in Treatment of Neoplastic Disease: Compound with Nitrogen-Mustard-like Activity Suitable for Oral and Intravenous Use, A. M. A. Arch. Int. Med **87**: 477 (April) 1951.

tic drug to be used on a woman who was already nauseated, vomiting, weak, and anorexic. The rapid fall in total white blood cell count and the diminution in the size of the spleen following the administration of 20 mg. of triethylene melamine given over a four-day period is apparent from the case report. The rapidity and extent of response are a little unusual following this dose in chronic myelogenous leukemia, but may occasionally be seen, and point up the variability with which patients react to oral triethylene melamine and the meticulous care which is necessary in the administration of the drug.

The hyperuricemia which was associated with the precipitous fall in the white blood cell count led to an increased renal output of uric acid and subsequent obstructive uremia by uric acid crystals. This series of events corresponds with cases of similar nature reported following x-ray therapy, but the onset of uremia was more rapid in this case. It appears that simple measures can be taken in an attempt to prevent such obstruction of the urinary tract. There should be adequate knowledge of the renal function of all leukemic patients prior to therapy. A satisfactory fluid intake should be maintained during treatment, and if the uric acid is high in the blood, purines should be curtailed in the diet. The urine should be kept alkaline to make the uric acid crystals more soluble. If obstruction occurs, attempts at catheterization of the ureters should be carried out, and antibiotics should be administered to combat the infection which invariably accompanies obstruction in the urinary tract. These measures were carried out in the case reported, and success in overcoming the ureteral obstruction and uremia was achieved.

444 E. 68th St.

PRACTICAL SYSTEM FOR THORACENTESIS USING THE BLOOD DONOR SET

Robert D. Beech, M.D., Salt Lake City

Thoracentesis should be a simple, sterile, and nontraumatic procedure. The use of the standard blood donor set permits the attainment of these criteria. The method is a revival of the old Potain principle and is particularly applicable to the aspiration of serous effusions.

PROCEDURE

The 600 cc. vacuum flasks and the tubing and needles for obtaining donor blood are utilized. The tubing is clamped with a curved forceps, and one of the needles is inserted through the cap of the flask. After preparing the skin and anesthetizing the tissues of the chest wall, the other needle is introduced to a point just within the parietal pleura. The clamp is partially released to permit a moderate rate of flow; a screw-clamp is helpful in maintaining the optimum rate. The tubing is clamped shut when the vacuum is exausted and while the needle is transferred to a second or third bottle.

ADVANTAGES

The system described above using the blood donor set has many advantages.

1. The aspirated fluid is available for study in sterile, noncoagulated form.

2. The patient and the physician are spared the tugging and time involved in the usual syringe and stopcock method. The tubing is compressed, however, to prevent unduly rapid removal of the fluid.

3. Lacerations are frequently inflicted on the visceral pleura with the long sharp instrument on the traditional thoracentesis tray. The shorter needle of the donor set is a reminder that the chest wall is less than 1 in. (2.5 cm.) in thickness in the posterior or midaxillary line of the average slender adult. If the patient is muscular or obese, the tubing may be reversed and the longer needle employed.

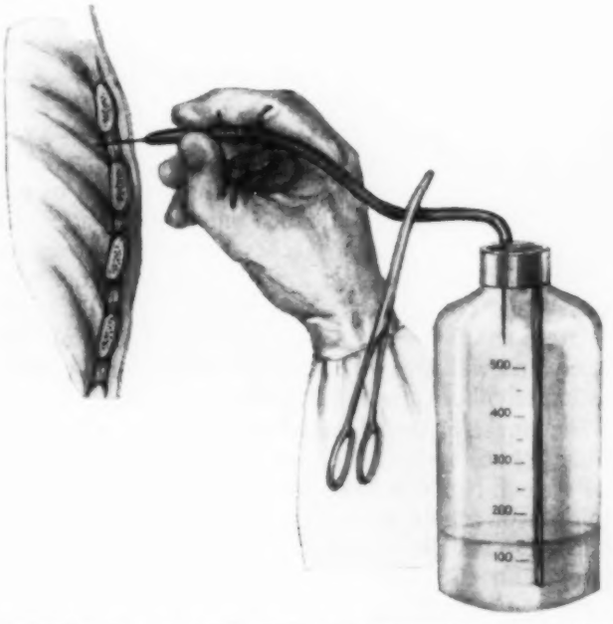


Illustration of a practical system for thoracentesis using the blood donor set.

4. Pneumothorax is avoided with difficulty when the stopcock and syringe are used, but does not occur in the presence of constant suction transmitted from the vacuum flask. For the same reason there is less chance of contaminating the pleural cavity.

CONCLUSION

The ordinary blood donor set may be used to perform thoracentesis simply and efficiently.

699 E. South Temple St.

From the Department of Medicine, University of Utah School of Medicine, and the Inter-mountain Clinic, Salt Lake City.

Antibiotic Antagonism.—There appears to be an antagonistic effect between penicillin and aureomycin or chloramphenicol. In other words, penicillin is more effective alone than in combination with either aureomycin or chloramphenicol. This is thought to be due to the fact that aureomycin and chloramphenicol are bacteriostatic, thus inhibiting the multiplication of the bacteria. This slows the action of penicillin, which is known to be most effective against bacteria in the rapidly growing phase.—William E. Wellman, M.D., Combinations of Antibiotics in the Treatment of Infectious Diseases, *Minnesota Medicine*, June, 1951.

THE JOURNAL
OF THE AMERICAN MEDICAL ASSOCIATION
535 N. DEARBORN ST. . . . . CHICAGO 10, ILL.
Edited by . . . . . AUSTIN SMITH, M.D.
Associate Editor . . . . . JOHNSON F. HAMMOND, M.D.
Editor for Medical Literature Abstracts . GEORGE HALPERIN, M.D.

Subscription price . . Fifteen dollars per annum in advance
Cable Address . . . . . "Medic, Chicago"

COMMUNISTIC TEACHING IN SCHOOLS

A resolution concerning communism in schools which was adopted by the House of Delegates of the American Medical Association at its 1951 meeting in Atlantic City has raised some discussion concerning its intent. Some who have read the resolution reported in THE JOURNAL (June 30, 1951, p. 849) have asked whether this represents an imputation of the public school system of this country or whether it is intended only to draw attention to that minority group of teachers which by subversive teachings embarrasses the loyal educators. Most educators have contributed much to community life and the welfare of the country and have been associated closely and willingly with the other professional groups, particularly those interested in health.

The House of Delegates did not intend to arraign the public school system. Most physicians are products of this system. Nor was there any intention of accusing the majority of school educators of being subversively inclined. In fact, physicians are aware that the American Association of School Administrators together with the National Council of Chief State School Officers joined forces with the American Medical Association and other professional and civic groups to oppose the President's Reorganization Plan No. 1 in 1949 and Plan No. 27 in 1950. Furthermore, the American Association of School Administrators and the National Education Association have made public announcements protesting the hiring of communist teachers. Many physicians and educators have worked industriously for many years to develop programs of mutual interest.

The medical profession has confidence in the teaching profession and believes that it consists mainly of a group of earnest, hard working individuals devoted to the ideals of democracy. However, in any large organization there are certain individuals who do things which do not bring credit to the organization. This is true in practically any aspect of community life. Whether the cause for criticism is due to lack of understanding or a determined, disloyal attempt to undermine the country's standards is not always apparent. The situation can be clarified best by each group studying its particular problem so that it may take whatever action is appropriate.

The American Medical Association, its constituent state associations, component county associations, and other groups for some time have been waging war against attempts to socialize medicine. Such socialization would be just one phase of the development of a program to collectivize and control by federal government all phases of the economic and social structure of this nation. The control of the educational system and the influencing of educators would be a primary objective in this program in spite of the fact that only a free educational system can truly be educational in a democratic sense. Freedom of this system must be protected at all costs. The American Medical Association therefore deplores the efforts of the small but determined and vocal minority of communist-inspired conspirators to impair the good repute of the schools in this country. The members of the Association as citizens and as practitioners, who have experienced the benefits of this nation's schools and whose children are now attending these schools, do not want them destroyed as instruments of democratic government.

RETIREMENT BENEFITS FOR PHYSICIANS

On two occasions the House of Delegates of the American Medical Association has expressed unanimous approval of a suggested amendment to the federal internal revenue laws to permit nonsalaried physicians and other self-employed taxpayers to set up for themselves a retirement benefits program out of income the tax on which would be deferred until the benefits are received. Such a privilege is now extended by federal law to taxpayers who are associated with corporations or who otherwise function as employees but not to the self-employed, who, because of legal, ethical, or other considerations, cannot function as corporate entities. This tax discrimination affects adversely not only physicians but the self-employed of other professional groups, such as lawyers and dentists. For several years, the directors of the Bureau of Medical Economic Research and of the Bureau of Legal Medicine and Legislation have collaborated with other organizations in the development of appropriate federal legislation; only recently they have consulted with a special committee of the American Bar Association in connection with this matter. That committee has completed a draft of legislation which was introduced in the Congress last June by Congressman Keogh, as H. R. 4371, and by Congressman Reed, as H. R. 4373. In the meantime, a new tax bill, H. R. 4473, has been progressing toward enactment. That bill passed the House of Representatives on June 22 and is being considered at the present time by the Senate Finance Committee. In order to expedite Congressional consideration of the retirement benefits proposal, Senator Ives on July 25 introduced as an amendment to the pending tax bill the substance of the Keogh-Reed legislation; this amendment is being considered by the Senate Finance Committee. Favorable action initially by the Committee and later by the Congress would remove a tax inequity that has long existed without understandable justification.

As previously pointed out in THE JOURNAL,[1] the pattern of the economic life of a physician subjects him to a proportionately greater tax burden than is borne by

1. Dickinson, F. G.: Income Tax Discrimination Against the Professions, J. A. M. A. **142**: 1357 (April 29) 1950. Dickinson, F. G., and Bradley, C. B.: Survey of Physicians' Incomes, J. A. M. A. **146**: 1249 (July 28) 1951.

many other self-employed taxpayers. His period of education and training is long. His lifetime earnings are bunched into a comparatively short working lifetime, and by reason of that fact he pays more federal income taxes during his life than do members of many other groups with similar lifetime earnings. In supporting the Ives amendment, physicians are not asking for any special favors. They are suggesting only a more equitable distribution of the tax burden.

ERADICATION OF MALARIA

It is indicative of the progress in the field of malaria that the 1950 Symposium of the National Malaria Society [1] was concerned with "Nation-Wide Malaria Eradication Projects in the Americas" rather than with "control" of malaria, as in the past. The concept of eradication of a disease implies, according to Soper,[1e] that the roots of infection are so destroyed that the disease will not reappear, in the absence of reintroduction, even though control measures be discontinued. The first suggestion for the "eradication" of malaria according to Andrews,[1a] was made by Dr. Frederick L. Hoffman in 1915, although he probably used the word eradication in the sense of control rather than of complete elimination of the disease. In his presentation, Andrews credits Dr. L. L. Williams Jr. with much of the antimalaria activities in the United States. The Public Health Service, with which Williams was associated, has initiated field investigations, promoted the development of state-level malaria survey and control teams, and organized coordinated major malaria control projects in this country. During World War II, the Office of Malaria Control established by Williams assisted the states in reducing the malaria hazard to trainees and workers around the areas of military importance. Drainage, filling, killing of larvae, entomoiogic exploration and inspection, and educational activities were carried out by this organization near some 2,200 localities of military importance in 18 different states. These activities are credited with preventing malaria in this country from interfering with the war effort and aborting the increase in national malaria incidence predicted for the early or middle forties.

The military use of DDT as a residual insecticide has established its antimalarial effectiveness and economy, and in 1945 the compound was made available to the states through the Public Health Service, specifically to prevent the transmission of imported malaria. It was sprayed on the interior walls and ceilings of rural homes and privies in counties where relatively high malaria mortality was experienced during the five years preceding World War II. This activity was known as the Extended Malaria Control Program and was carried on for two years.

The National Malaria Eradication Program was initiated in 1947. In planning the program for this country, it was realized that the vectoral species of Anopheles could not be completely annihilated. The elimination of all malaria parasites from the population by mass treatment was also considered difficult of achievement. The approach to the problem was based on the elimination of endemicity and the prevention of its reestablishment. It was believed that, if the numbers of malaria parasite carriers and of vectoral mosquitoes could be reduced at the same time, transmission would become less and less likely. This program could be carried on until ultimately endemic malaria would be eradicated. The decline in transmission was to be achieved by promoting improved diagnosis and treatment of the disease and by reducing the household density of Anopheles with residual insecticides. The second phase of the eradication program to prevent the recurrence of endemicity, involved surveillance and prevention teams assigned to state health departments. The Public Health Service had the cooperation of 13 states concerned in this National Malaria Eradication Program.

In the usual procedure, 5% DDT in a triton[2]-xylene-water emulsion is applied to internal surfaces of homes and privies at the approximate rate of 200 mg. of DDT per square foot. A review of the reported statistics on malaria mortality and morbidity, of routine diagnostic and survey blood examinations, and of case appraisals supports the contention that our endemic malaria has declined to a very low level. Andrews feels that the reduction of primary malaria in this country during the last 20 years is due in large part to the use of insecticides in the home.

The results with residual DDT spraying of dwellings were even more spectacular in some of the South American republics. According to Gabaldon,[1b] large-scale introduction of the method in Venezuela in 1945 resulted in a decided reduction in malaria incidence. The malaria death rate fell from a median of 112 per 100,000 in 1941-1945 to nine in 1949. Malaria was prevalent in British Guiana in 1947. According to Giglioli,[1c] Anopheles darlingi, the principal transmitter of malaria in the colony, has completely disappeared from all areas in which systematic residual DDT spraying was done. The results of a nationwide malaria control program based on house spraying with DDT in Brazil were reported by Pinotti.[1d] The initial effect was disappearance of all Anopheles from the interior of human dwellings. This development was observed with all five of the Brazilian vector species after the first treatment with DDT. The results suggest that eradication of malaria from large sections of the country may eventually be achieved.

This symposium of the National Malaria Society on "Nation-Wide Malaria Eradication Projects in the Americas," according to Soper,[1e] makes it apparent that the great bulk of the malaria of the Americas is readily suppressed through residual domiciliary spraying. For the first time, there exists a single, efficient, and economical attack on malaria which can be standardized and applied to almost all malarious areas of the Americas.

---

1. Symposium on Nation-Wide Malaria Eradication Projects in the Americas, J. Nat. Malaria Soc. **10**: 99 (June) 1951. (*a*) Andrews, J. M.: I. The Eradication Program in the U. S. A. (*b*) Gabaldon, A.: II. Progress of the Malaria Campaign in Venezuela. (*c*) Giglioli, G.: III. Eradication of Anopheles Darlingi from the Inhabited Areas of British Guiana by DDT Residual Spraying. (*d*) Pinotti, M.: IV. The Nation-Wide Malaria Eradication Program in Brazil. (*e*) Soper, F. L.: V. General Principles of the Eradication Programs in the Western Hemisphere.

THE PRESIDENT'S PAGE

A MONTHLY MESSAGE

As physicians, we are all more or less aware of the extensive scientific activities of our American Medical Association. Most of us, however, are not so familiar with the many valuable public services which the Association renders, because they do not affect us so directly. One of the most important of these is the Association's work in health education of the public.

Our Association pioneered in this field, turning out authentic, interesting health information long before most other health agencies had recognized its value. The A. M. A.'s Bureau of Health Education was first established in 1911 as the Council on Health and Public Instruction. It has been functioning continuously ever since, although it has undergone several reorganizations and name changes.

The present director of the Bureau is Dr. W. W. Bauer, an internationally known leader in public health education. Dr. Bauer, who also edits *Today's Health*, received the Elisabeth Severance Prentiss National Award in Health Education from the Cleveland Health Museum in 1947, and in 1949 he spent three months in Germany as a visiting expert in public health with the American Military Government. He is the author or co-author of 16 books in the health field, and the list of organizations which he serves as health consultant is impressive. Assisting Dr. Bauer with the professional work of the Bureau are two other physicians and an educator, all of whom have extensive experience in the health education field.

The oldest of the Bureau's many activities is answering medical questions sent in to the A. M. A. by laymen. From 12,000 to 15,000 such letters are received annually, averaging about 140 questions per 100 letters. All of them are answered under the supervision of a physician from information in the medical literature. Occasionally unusual or difficult questions are referred to highly qualified consultants who render this service freely and anonymously to the Association.

Another important activity of the Bureau is health education by radio. The A. M. A. entered this field in 1925 with two broadcasts every week day over a Chicago station, one of which was also channeled to the CBS network. In 1933 the Association began presenting weekly health talks over the NBC network, and over a period of years furnished authentic health information on thousands of subjects. This series twice won first place awards from the Institute for Radio in Education, held annually at Ohio State University. Because of the advent of television, which cut the value of network radio, the A. M. A. in 1949 dropped this series in favor of occasional documentary-type network shows.

Another important phase of the Bureau's work in radio started in 1930, when it began preparing and distributing radio scripts for use by local medical societies. This eventually grew into a library of some 1,000 scripts, and the service was continued until World War II, when the heavy drain on physicians' time made the use of scripts difficult. Since medical societies still wanted to continue broadcasting, the Bureau in 1941 began recording health programs. It currently has 25 different 13-week transcribed programs available on a loan basis to medical societies for use on local radio programs.

Television has offered a dramatic new challenge for health education. In 1947 the A. M. A. supervised a series of experimental telecasts on a Chicago station which were similar in character to the present highly successful Johns Hopkins "Science Review." Since then the Bureau has made the first medical network telecast, on atomic energy in medicine, in 1949, and produced a kinescoped dramatic telecast, "Dr. Webb of Horseshoe Bend," in 1950. The latter was televised in 40 of 65 communities having television facilities. To assist local medical societies, the Bureau has prepared packets of sample television scripts with full instructions for presenting "live" shows and also a Television Handbook with general pointers on television. Currently, the Bureau and the A. M. A. Committee on Medical Motion Pictures are conducting an investigation into the use of available health films on television and the possible production of such films especially for television.

In addition to radio, television, and the answering of mail inquiries, the Bureau of Health Education reaches the public through production of pamphlets. Some of these are reprints from *Today's Health;* many are developed by the staff. All are available at cost. The 500,000 copies which the Bureau distributes yearly cover a wide variety of health subjects and are used by medical societies at public meetings, fairs and expositions, and by individual physicians to lighten the load of patient questions.

One of the Bureau's most outstanding contributions has been made in the field of school health. At the time it was first established, the Bureau set up a Joint Committee on Health Problems in Education with the National Education Association. This year that committee is celebrating its 40th year of continuous growth in service and prestige. It has published, among other things, one of the most authoritative books in existence on health education and has exerted great influence through the years for improvement in all phases of school health.

Every two years since 1947, the Bureau has sponsored a National Conference on Physicians and Schools, the proceedings of which have been widely circulated and quoted. The Bureau staff also serves in a consulting capacity to practically every educational organization and through these contacts has been able to effect steady progress in school health.

I have not mentioned the many speaking engagements filled by staff members, the other invaluable contacts of the Bureau with most national organizations interested in public health, or the Bureau's pioneering work in the fight against antivivisectionists and other cults. Suffice it to say that, except for health movies, exhibits, and news releases, which are handled by other departments, there is no area of health education not covered by the Bureau.

Here is constructive, progressive work to which every A. M. A. member can point with pride. The best way we can help our Health Education Bureau is to use its services fully.

JOHN W. CLINE, M.D., San Francisco.

MEDICAL NEWS

CALIFORNIA

Loans for Junior Physicians.—The San Francisco Medical Society has established a loan fund for interns and residents in the City and County of San Francisco. Ten thousand dollars has been made available for use in assisting junior physicians in need of financial help to complete a previously planned program of training. All applications are to be considered in the strictest confidence and without unnecessary delay. Applicants are limited to one loan each year except in unusual cases to be determined by the committee for junior physicians and the finance committee. Notes will be signed personally with no co-signers or guarantors required. The principal of the loan is to be repaid within two years after starting practice or, in most cases, within a period of five years after the activation of the loan. The prevailing rate of savings bank interest at the time of the loan will be charged.

COLORADO

State Medical Meeting.—The annual session of the Colorado State Medical Society will be held at the Shirley-Savoy Hotel, Denver, Sept. 18-21 under the presidency of Dr. Ervin A. Hines, Denver. Guest speakers at the general assemblies include the following:

Ralph V. Platou, New Orleans, Prenatal Influences.
Stuart W. Harrington, Rochester, Minn., Clinical Manifestations and Surgical Treatment of Carcinoma of the Breast.
Donald E. King, San Francisco, Common Mistakes in the Treatment of Common Fractures.
Maxwell M. Wintrobe, Salt Lake City, Diagnosis and Treatment of Anemia.
Wilhelm C. Hueper, Bethesda, Md., Environmental Cancer Problems in Colorado.

There will be a symposium on communicable diseases on Wednesday morning, the participants being Drs. Roy L. Cleere and John A. Lichty, Denver, Charles H. Dowding Jr., Aurora, Colo., and Joseph E. Cannon, Denver. On Friday morning the department of dermatology of the University of Colorado School of Medicine will present a symposium on lupus erythematosus. "You and Your A. M. A." will be the subject of a symposium and panel discussion Thursday afternoon. Five 10-minute papers will be given by the following officials of the American Medical Association: Dr. James R. McVay, Kansas City, Mo., Dr. Edward J. McCormick, Toledo, Ohio, Dr. Joseph D. McCarthy, Omaha, Dr. George A. Unfug, Pueblo, Colo., Dr. Frank E. Wilson, Washington, D. C., and Dr. Fred A. Humphrey, Fort Collins, Colo. There will be a question and answer period following the papers. The annual banquet will be held Friday evening. The Women's Auxiliary to the society will meet in conjunction with the association.

CONNECTICUT

Hospital Building Boom.—A survey recently completed by the state medical society shows that the biggest hospital building boom in the state's history is underway at a cost that will exceed 29 million dollars. It involves more than half of the state's 34 community hospitals and ranges from alterations to erection of completely new hospital units. The multimillion-dollar-program will provide more than 1,200 additional hospital beds and an array of new operating rooms, maternity centers, and emergency, diagnostic, and outpatient facilities, as well as laboratories, hospital pharmacies, and dietary and laundry services. The survey discloses that 90% of the 29 million dollar expansion will be paid for by voluntary contributions that already exceed $19,500,000. Government contributions under provisions of the Hill-Burton Act may account for 10%. In several instances applications for government money were not filed, the entire amount being raised locally.

The millions that are being spent are not only flowing into large city hospitals but also into hospitals in smaller communities that serve large rural areas. The survey concerns only privately supported community hospitals, municipal, state, or federal institutions. It covers construction undertaken or completed during the past year, projects currently in progress, and those scheduled to start in the next six to eight months. Among the 18 hospitals engaged in building programs, the largest single project is the new 10-floor memorial unit now under construction at the Grace-New Haven Community Hospital. The building is scheduled for completion in October, 1952, at a cost of 7 million dollars including equipment. It will provide 325 patient beds and all facilities for independent hospital operation.

ILLINOIS

Carroll County Honors Veteran Physician.—Thousands of persons from Carroll County and nearby counties in Illinois and Iowa turned out Aug. 8 to honor Dr. Joseph B. Schreiter, who has practiced in Savanna for 55 years. The ceremony included a parade, a picnic, oratory, and bestowal of various surprise honors on the 76-year-old physician. An invitation was issued to all the 4,000 persons at whose birth Dr. Schreiter has presided. The Illinois State Medical Society sent Dr. Andy Hall of Mt. Vernon, 86-year-old veteran who was chosen the outstanding general practitioner of the nation for 1950 by the American Medical Association, as principal speaker for the occasion. Also representing organized medicine of the state were Dr. C. Paul White of Kewanee, president of the Illinois State Medical Society; Dr. Harold M. Camp of Monmouth, its secretary; Dr. Charles P. Blair of Monmouth, chairman of its council; and Dr. Joseph S. Lundholm of Rockford, state councilor. Many other physicians joined the Carroll County Medical Society in honoring him. Dr. Schreiter was elected coroner in 1903 and still serves in that post, having been re-elected 11 times. He is chief of staff of the Savanna City Hospital. Despite his age and many activities, he still takes care of a substantial practice, making house calls and keeping evening office hours, although he no longer does major surgery.

Chicago

Personal.—F. Ellis Kelsey, Ph.D., associate professor of pharmacology at the University of Chicago, has been appointed director of the chemical department of the Nuclear Instrument and Chemical Corporation, Chicago.

Joins Armour Medical Staff.—Dr. Grosvenor W. Bissell, Buffalo, has joined the clinical investigation group of the medical department of the Armour Laboratories as an assistant medical director. Dr. Bissell has been full-time assistant professor of medicine at the University of Buffalo and director of the endocrinology clinic of Edward J. Meyer Memorial Hospital.

Loyal Davis to Lecture at Oxford.—Dr. Loyal Davis, professor of surgery and chairman of the department at Northwestern University Medical School, has been selected to give the Earl of Litchfield Lecture at Oxford University Oct. 10, on "The Physiological Principles Underlying the Treatment of High Diastolic Hypertension by Thiocyanates and Sympathectomy."

Chicago Heart Association Grants.—Checks totaling $81,050 have been presented to representatives of nine Chicago area medical institutions by the Chicago Heart Association for research projects in heart disease. The grants are the first from funds raised in the association's 1951 drive. The nine institutions are the University of Chicago, Northwestern University, University of Illinois, Loyola University, Chicago Medical School, Michael Reese Hospital, La Rabida Sanitarium, Herrick House, and Women and Children's Hospital for its Heart of the Home cardiac education program under Dr. Margaret H. Austin.

Physicians are invited to send to this department items of news of general interest, for example, those relating to society activities, new hospitals, education and public health. Programs should be received at least three weeks before the date of meeting.

IOWA

Promotions at State University.—The following persons have been promoted to the rank of assistant professor in the department of internal medicine, State University of Iowa, Iowa City: Drs. Henry E. Hamilton, Walter M. Kirkendall, Paul M. Seebohm, and Raymond F. Sheets Jr. Dr. William Ames was promoted to the rank of associate; Drs. David W. Sinton and Ernest O. Theilen were appointed instructors, and Dr. Margaret Vance was appointed fellow in metabolism. Dr. Murray Franklin resigned to take a position in the department of internal medicine at the University of Illinois, Chicago.

KANSAS

Dr. Murphy Named Chancellor.—Dr. Franklin D. Murphy, dean of the University of Kansas School of Medicine since July 1948, was named chancellor of the University of Kansas July 2, succeeding Chancellor Deane W. Malott, who resigned to become president of Cornell University, Ithaca, N. Y. During his three years as dean Dr. Murphy has strengthened the medical school faculty, and with the State Medical Society and the Farm Bureau he co-authored the Kansas Rural Health Plan, which has already begun to show results. The U. S. Junior Chamber of Commerce selected him in 1949 as one of the 10 outstanding young men of the country, and in June of this year he was elected by the House of Delegates to the Council on Medical Education and Hospitals of the American Medical Association.

MARYLAND

Test State Drivers.—State and county health departments of Maryland are now giving standard driving tests to all personnel who drive state cars in an attempt to improve their habits and reduce accidents. The actual testing was begun July 2 and by the end of August tests will have been completed in each of Maryland's 23 counties. It is expected that about 230 persons throughout the state will be tested this summer. The test, administered by a representative of the Automobile Club of Maryland, consists of three parts. The first part is a written test of traffic and driving knowledge that includes 25 questions. A practical driving test follows, with the examiner accompanying the driver on the road and making notes concerning any errors made. Finally, there is a battery of psychophysical tests which measure performance on standard testing devices. Soon after each test has been made, a report of conclusions reached and possible recommendations for corrective action are sent to the individual tested, the deputy state health officer, bureau chief, or division chief to whom the driver is directly responsible, and also to the chief of the bureau of management.

MINNESOTA

Dr. Dennis Goes to New York.—Dr. Clarence Dennis, professor of surgery at the University of Minnesota Medical School, Minneapolis, will be professor of surgery and director of general surgery, University Division, at the Kings County Hospital, Brooklyn. Dr. Dennis has successively held the positions of instructor, assistant professor, and associate professor of surgery at the University of Minnesota, and was appointed professor of surgery there in 1947.

MISSISSIPPI

Malaria in Korean Veterans.—According to Dr. Archie L. Gray, of the Mississippi State Board of Health, seven proved and two probable cases of malaria were reported in Mississippi during the first six months of 1951. All of the cases have been reported since May 24 and have occurred only in military personnel who had served in Korea. The ages of those infected ranged from 19 to 27 years. Six Plasmodium vivax infections and one Plasmodium malariae infection were confirmed by laboratory examination. Two cases in which laboratory confirmation was not obtained had received treatment a short time before blood smears were taken. Six of the cases had had suppressive treatment while in military service in Korea, and one has a suggestive history of malaria prior to military service. Dr. Gray states that the presence of this number of known cases of malaria in Mississippi is disturbing since local outbreaks may occur in the communities to which these veterans have returned.

MONTANA

State Medical Meeting.—The annual session of the Montana Medical Association will be held at the Meadow Lark Country Club, Great Falls, Sept. 13-16 under the presidency of Dr. Clyde H. Fredrickson of Missoula. Guest speakers at the scientific sessions include the following:

Robert H. Williams, Seattle, Adrenal Physiology and Therapy.
Russell R. de Alvarez, Seattle, Hysterectomy.
Thomas H. Holmes, Seattle, Life Stress and Respiratory Disorders.
K. Alvin Merendino, Seattle, Heart Surgery: An Evaluation of the Present Status with a Look into the Future.
Thomas B. Carlile Jr., Seattle, Clinical Use of Radioactive Isotopes.
Robert J. Neville, Teaneck, N. J., Staff Management of Poliomyelitis.
Kenneth A. Phelps, Minneapolis, Dangerous Complications of Tonsillectomy in Children.

There will be noon panel discussions on Thursday and Friday conducted by the guest speakers. At the banquet Friday at 7 p. m., Frank G. Dickinson, Ph.D., director, Bureau of Medical Economic Research, American Medical Association, Chicago, will speak on "The Shortage of Physicians: Phantom or Fact." Technical exhibits will be on display. The State Academy of Oto-Ophthalmology and Obstetrical and Gynecological Society, the Montana Pediatric Society, and the Montana Chapter of the American Academy of General Practice will hold dinner meetings Thursday evening. The Women's Auxiliary to the association will meet Sept. 13-15 with headquarters at the Rainbow Hotel in Great Falls.

UTAH

State Medical Meeting.—The Utah State Medical Association will hold its annual session in the Union Building at the University of Utah, Salt Lake City, Sept. 13-15 under the presidency of Dr. Vivian P. White, Salt Lake City. Out-of-state speakers include the following:

Carl A. Moyer, Dallas, Texas, General Principles of the Supportive Care of Trauma.
William J. Dieckmann, Chicago, Toxemias of Pregnancy.
Charles L. Martin, Dallas, Texas, Uterosalpingography for Treatment of Sterility in the Female.
Vernon D. E. Smith, St. Paul, Thrombo-Embolism: Post-Operative Prophylactic Anti-Coagulation Therapy.
Frank B. Walsh, Baltimore, Recent Advances in Ophthalmological Diagnosis of Systemic Disease.
Lawrence W. Kinsell, Oakland, Calif., Present Status of the Clinical Application of ACTH and Cortisone.
Arthur C. Curtis, Ann Arbor, Mich., Cutaneous Lesions as a Manifestation of Systemic Disease.
Irvine McQuarrie, Minneapolis, Spontaneous Hypoglycemosis as a Clinical Problem.

On Thursday morning there will be a surgical round table with Dr. Ralph T. Richards, Salt Lake City, as moderator, and the discussants Drs. Smith, Moyer, Dieckmann, Martin, and Walsh. A medical round table will be held Friday afternoon with Dr. Louis E. Viko acting as moderator. The discussants will be Drs. Wintrobe, Kinsell, Curtis, McQuarrie, and John Z. Bowers of Salt Lake City. The banquet will be held Friday evening in the ballroom of the Hotel Utah beginning at 7 p. m. Dr. Smith will give an illustrated lecture entitled "The Cradle of Modern Skiing."

ALASKA

Medical Election.—Officers of the Alaska Territorial Medical Association for 1951-52 include Dr. Howard G. Romig, Anchorage, president; Dr. John O. Bangeman, Wrangell, first vice president; Dr. John H. Clements, Juneau, second vice president, and Dr. William P. Blanton, Juneau, secretary-treasurer.

GENERAL

Surgical Congress.—The third annual meeting of the Southwestern Surgical Congress will be held at the Hotel Jefferson, St. Louis, Sept. 24-26. Reservations may be secured by writing directly to the hotel. Registration will begin at 12 noon Sept. 23 and at 8 a. m. on each succeeding day. There will be a $10 registration fee for non-members of the congress.

Keyes Memorial Medal.—Dr. William F. Braasch, professor of urology at the Mayo Foundation in Rochester, Minn., has been awarded the Dr. Edward L. Keyes gold medal of the American Association of Genito-Urinary Surgeons for his "outstanding

contributions to the advancement of urology." The presentation was made at the annual meeting. The award was first given by the association in 1933, and since that time only six men have been honored with it. Dr. Keyes was the founder of the association in 1886.

Fund for Filipino Doctors.—The Philippine Medical Association in America, formed in 1950, is engaging in a campaign to provide fellowships for Filipino doctors to take up training in the United States. The association is working to combat the shortage of medical personnel caused by war and enemy occupation. Dr. Antonio del Castillo, New York, is president of the organization, which has its headquarters at 15 E. 62d St., New York 21. Others who have endorsed the campaign include Gen. Carlos P. Romulo, foreign secretary and representative to the United Nations, and Emilio Abello, Philippine consul general in New York.

Heart Association Revises Examination Manual.—The American Heart Association has issued the first revision of its manual for physicians, "Examination of the Heart," originally published in 1940. The initial limited printing is being made available free to physicians concerned with the diagnosis of cardiovascular diseases. Requests for the booklet should be directed to local affiliated heart associations, or directly to the American Heart Association, 1775 Broadway, New York 9. The purpose of the original booklet was to outline the clinical examination of the heart without the help of any instrument other than the stethoscope. The revision adds new material on blood pressure, and comments on the use of the electrocardiograph and other diagnostic procedures employed in heart disease. The booklet includes sections on cardiac rhythms and rates, cardiac enlargement, and cardiac sounds and murmurs.

Industrial Health Meetings.—The fourth annual Gulf Coast Regional Conference on Industrial Health will be held at the Rice Hotel in Houston Sept. 27-29. Emphasis will be placed this year on industrial health in civil defense, industrial hygiene, and industrial medicine in small industries. Among the speakers will be Dr. Jermyn F. McCahan of Chicago, assistant secretary, Council on Industrial Health, American Medical Association; E. W. Gilliland, chief chemist of John T. Ryan Memorial Laboratories, Pittsburgh; W. E. McCormick, B. F. Goodrich Rubber and Processing Co., Akron, Ohio; Edward G. Meiter, Ph.D., director of industrial hygiene, Employers Liability Insurance Co. of Milwaukee; William Bradley, American Cyanamid Company, New York; Warren G. Cook, director of industrial health and research, Zurich Insurance Co. of Chicago; Dr. Clifford H. Kalb, Milwaukee; Dr. Edward C. Holmblad of Chicago, and Charles R. Williams, Ph.D., Liberty Mutual Insurance Co., Boston.

International Gerontological Congress.—Scientists from 46 foreign countries are expected to attend this international congress on the problems of aging being held at the Hotel Jefferson, St. Louis, Sept. 9-14. Washington University School of Medicine will be host. The meetings have been divided into four sections: (1) Biology and Medicine, under the chairmanship of Dr. John E. Kirk, St. Louis; (2) Sociology, Psychology, Education, and Religion, under the chairmanship of Robert J. Havighurst, Ph.D., Chicago; (3) Economics and Welfare, under the chairmanship of Mr. Wilbur Cohen, Washington, D. C.; and (4) Medical Services, Hygiene, and Housing, under the chairmanship of Dr. Joseph Mountin, Washington, D. C. The meeting is a continuation of the first world-wide meeting on the subject held in 1940 in Liege, Belgium. Sponsors are the International Association of Gerontological Societies, the Gerontological Society, Inc., and the American Geriatrics Society. Dr. Edmund V. Cowdry, professor of anatomy in the Washington University School of Medicine, is president of the congress.

CORRECTION

American Congress of Physical Medicine.—Since publication of the announcement of the program of the American Congress of Physical Medicine in Denver Sept. 4-8 (THE JOURNAL, Aug. 11, p. 1431), the two sets of lectures being given at the scientific sessions have been opened to both physicians and registered therapists of the American Occupational Therapy Association and the American Registry of Physical Therapists.

Prevalence of Poliomyelitis.—According to the National Office of Vital Statistics, the following number of reported cases of poliomyelitis occurred in the United States in the weeks ended as indicated:

Area	Aug. 11, 1951	Aug. 4, 1951	Aug. 12, 1950
New England States			
Maine	5	1	5
New Hampshire	5	9	..
Vermont	1	2	2
Massachusetts	26	19	27
Rhode Island	..	..	1
Connecticut	25	12	29
Middle Atlantic States			
New York	105	65	172
New Jersey	10	17	29
Pennsylvania	25	35	45
East North Central States			
Ohio	73	37	25
Indiana	16	10	22
Illinois	129	81	69
Michigan	115	73	63
Wisconsin	57	34	20
West North Central States			
Minnesota	19	28	34
Iowa	33	14	72
Missouri	26	12	14
North Dakota	2	5	8
South Dakota	3	5	12
Nebraska	25	23	25
Kansas	30	36	21
South Atlantic States			
Delaware	..	1	2
Maryland	7	1	29
District of Columbia	3	4	15
Virginia	18	11	94
West Virginia	12	9	18
North Carolina	16	21	50
South Carolina	7	3	24
Georgia	38	49	15
Florida	20	16	17
East South Central States			
Kentucky	17	15	33
Tennessee	51	30	38
Alabama	71	43	18
Mississippi	28	38	23
West South Central States			
Arkansas	18	23	15
Louisiana	36	34	30
Oklahoma	49	52	39
Texas	97	92	131
Mountain States			
Montana	1	2	..
Idaho	5	..	2
Wyoming	3	9	2
Colorado	112	71	7
New Mexico	3	2	3
Arizona	20	3	7
Utah	34	23	2
Nevada	2	1	..
Pacific States			
Washington	19	8	20
Oregon	16	14	23
California	89	110	83
Territories and Posessions			
Alaska	1	..	..
Hawaii	3	1	..
United States	1,526	1,204	1,435

MEETINGS

AMBULATORY FRACTURE ASSOCIATION, Arrowhead Springs Hotel, San Bernardino, Calif., Oct. 8-11. Dr. H. W. Wellmerling, 626 Griesheim Bldg., Bloomington, Ill., Secretary.

AMERICAN ASSOCIATION OF OBSTETRICIANS, GYNECOLOGISTS AND ABDOMINAL SURGEONS, The Homestead, Hot Springs, Va., Sept. 6-8. Dr. William F. Mengert, 2211 Oak Lawn Ave., Dallas, Texas, Secretary.

AMERICAN CONGRESS OF PHYSICAL MEDICINE, Shirley-Savoy Hotel, Denver, Sept. 4-8. Dr. Walter J. Zeiter, 2020 E. 93d St., Cleveland 6, Executive Director.

AMERICAN HOSPITAL ASSOCIATION, St. Louis, Sept. 17-20. Mr. George Bugbee, 18 E. Division St., Chicago 10, Executive Director.

AMERICAN ROENTGEN RAY SOCIETY, Washington, D. C., Sept. 25-28. Dr. Barton R. Young, Germantown Hospital, Philadelphia 44, Secretary.

AMERICAN SOCIETY OF MAXILLOFACIAL SURGEONS, Drake Hotel, Chicago, Sept. 23-26. Dr. Casper M. Epsteen, 25 E. Washington St., Chicago 2, Secretary.

ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES, Palmer House, Chicago, Oct. 8-10. Colonel James M. Phalen, Armed Forces Institute of Pathology, Washington 25, D. C., Secretary.

COLORADO STATE MEDICAL SOCIETY, Denver, Sept. 18-21. Mr. Harvey T. Sethman, 1612 Tremont Place, Denver 2, Executive Secretary.

DELAWARE, MEDICAL SOCIETY OF, Wilmington, Oct. 8-10. Dr. Andrew H. Gehret, 1007 Park Place, Wilmington, Secretary.

DISTRICT OF COLUMBIA, MEDICAL SOCIETY OF, Hotel Statler, Washington, Oct. 1-3. Mr. Theodore Wiprud, 1718 M St. N.W., Washington, Secretary.

KANSAS CITY SOUTHWEST CLINICAL SOCIETY, Municipal Auditorium, Kansas City, Mo., Oct. 1-4. Dr. Maxwell G. Berry, 630 Shukert Bldg., Kansas City, Mo., Director of Clinics.

KENTUCKY STATE MEDICAL ASSOCIATION, Columbian Auditorium, Louisville, Oct. 2-5. Dr. Bruce Underwood, 620 S. Third St., Louisville 2, Secretary.

MICHIGAN STATE MEDICAL SOCIETY, Grand Rapids, Sept. 26-28. Dr. L. Fernald Foster, 606 Townsend St., Lansing 15, Secretary.

MISSISSIPPI VALLEY MEDICAL SOCIETY, Peoria, Ill., Sept. 19-21. Dr. Harold Swanberg, 510 Maine St., Quincy, Ill., Secretary.

MONTANA MEDICAL ASSOCIATION, Great Falls, Sept. 13-16. Mr. L. R. Hegland, 104 N. Broadway, Billings, Executive Secretary.

NASHVILLE POSTGRADUATE MEDICAL ASSEMBLY, Maxwell House, Nashville, Tenn., Oct. 3-5. Dr. W. G. Kennon Jr., 647 Doctors Bldg., Nashville 3, Secretary.

NEUROSURGICAL SOCIETY OF AMERICA, Sun Valley, Idaho, Sept. 12-14. Dr. C. D. Hawkes, 22 N. Manassas St., Memphis 5, Tenn., Secretary.

NEVADA STATE MEDICAL ASSOCIATION, Riverside Hotel, Reno, Sept. 13-15. Dr. Wesley W. Hall, 307 W. Sixth St., Reno, Secretary.

NEW HAMPSHIRE MEDICAL SOCIETY, Equinox House, Manchester, Vermont, Sept. 30-Oct. 2. Dr. Deering G. Smith, 44 Chester St., Nashua, Secretary.

NORTHEASTERN SECTION, SOUTHEASTERN SURGICAL CONGRESS, Lord Baltimore Hotel, Baltimore, Sept. 13-15. Dr. W. Raymond McKenzie, Medical Arts Bldg., Baltimore 1, Secretary.

NORTH TEXAS-SOUTHERN OKLAHOMA FALL CLINICAL CONFERENCE, Wichita Falls, Texas, Sept. 19. Dr. W. L. Powers, 517 Hamilton Bldg., Wichita Falls, Chairman.

OREGON STATE MEDICAL SOCIETY, Masonic Temple, Portland, Oct. 10-13. Dr. Robert F. Miller, 833 S.W. Eleventh Ave., Portland 5, Secretary.

PENNSYLVANIA, MEDICAL SOCIETY OF THE STATE OF, Pittsburgh, Sept. 16-20. Dr. Walter F. Donaldson, 500 Penn Ave., Pittsburgh 22, Secretary.

SOUTHWESTERN SURGICAL CONGRESS, Hotel Jefferson, St. Louis, Sept. 24-26. Dr. C. R. Rountree, 1227 Classen St., Oklahoma City 3, Secretary.

TEXAS ACADEMY OF GENERAL PRACTICE, Shamrock Hotel, Houston, Texas, Sept. 10-11. Dr. B. H. Bayer, 104 E. 20th St., Houston 8, Secretary.

U. S. CHAPTER, International College of Surgeons, Palmer House, Chicago, Sept. 10-14. Dr. Arnold S. Jackson, 1516 Lake Shore Drive, Chicago, Executive Secretary.

UTAH STATE MEDICAL ASSOCIATION, Salt Lake City, Sept. 13-15. Dr. T. C. Weggeland, 42 S. Fifth East St., Salt Lake City, Secretary.

VERMONT STATE MEDICAL SOCIETY, Equinox House, Manchester, Sept. 30-Oct. 2. Dr. James P. Hammond, 542 Main St., Bennington, Secretary.

VIRGINIA, MEDICAL SOCIETY OF, Virginia Beach, Oct. 7-10. Mr. Richard H. Nash, 1105 W. Franklin St., Richmond, Executive Secretary.

WASHINGTON STATE MEDICAL ASSOCIATION, Olympic Hotel, Seattle, Sept. 9-12. Dr. James W. Haviland, 338 White-Henry-Stuart Bldg., Seattle, Secretary.

WESTERN SOCIETY OF ELECTRO-ENCEPHALOGRAPHY, Olympic Hotel, Seattle, Sept. 7-8. Dr. Nicholas A. Bercel, 450 N. Bedford Drive, Beverly Hills, Calif., Secretary.

WISCNOSIN, STATE MEDICAL SOCIETY OF, Hotel Schroeder and Milwaukee Auditorium, Milwaukee, Oct. 1-3. Mr. Charles H. Crownhart, 704 E. Gorham St., Madison 3, Secretary.

WYOMING STATE MEDICAL SOCIETY, Rock Springs, Sept. 27-29. Dr. Glenn W. Koford, 2020 Carey Ave., Cheyenne, Secretary.

INTERNATIONAL

EUROPEAN CONGRESS ON RHEUMATISM, Barcelona, Spain, Sept. 24-27. Dr. Gunnar Edström, Lund, Sweden, Secretary.

GENERAL PRACTITIONERS STUDY CLUB INTERNATIONAL, Rome, Italy, Sept. 12-15. Dr. John O'Connell, 10300 Lackland Road, St. Louis 14, Mo., U. S. A., President.

INTERNATIONAL ANESTHESIA RESEARCH SOCIETY, London, England, Sept. 3-7. Mr. R. W. Cope, University College Hospital, London W.C.1, England.

INTERNATIONAL ASSOCIATION OF ALLERGISTS, Zurich, Switzerland, Sept. 23-29. Prof. A. S. Grumbach, Hygiene Institut der Universitaet Zurich, Gloriastr. 32, Zurich, Switzerland.

INTERNATIONAL CONGRESS OF ANESTHESIOLOGY, Nursing School of the Salpiettre, 47 Boul de l'Hospital, Paris, France, Sept. 20-22. 12 rue de Seine, Paris 6e, France, Secretariat.

INTERNATIONAL CONGRESS ON INDUSTRIAL MEDICINE, Instituto Superior Técnico, Lisbon, Portugal, Sept. 9-15. Dr. Luis Guerreiro, Instituto Nacional do Trabalho e Previdência, Praça do Comercio, Lisbon, Secretary General.

INTERNATIONAL CONGRESS ON MENTAL HEALTH, Mexico City, Mexico, Dec. 11-19. Mrs. Grace E. O'Neill, Division of World Affairs, National Association on Mental Health, 1790 Broadway, New York 19, N. Y.

INTERNATIONAL GERONTOLOGICAL CONGRESS, Hotel Jefferson, St. Louis, Mo., U. S. A., Sept. 9-14. Dr. John E. Kirk, 5600 Arsenal Street, St. Louis 9, Mo., Chairman, Program Committee.

INTERNATIONAL POLIOMYELITIS CONGRESS, Copenhagen, Denmark, Sept. 3-7. Prof. Dr. Niels Bohr, Statens Seruminstitut, 80 Amager Blvd., Copenhagen S., Denmark, President.

INTERNATIONAL SOCIETY OF SURGERY, Paris, France, Sept. 24-29. Dr. L. Dejardin, 141, rue Belliard, Brussels, Belgium, Secretary General.

INTERNATIONAL SOCIETY FOR THE WELFARE OF CRIPPLES, Fifth World Congress, Stockholm, Sweden, Sept. 9-14. Mr. Donald V. Wilson, 54 E. 64th St., New York 21, N. Y., U. S. A., Executive Director.

PAN PACIFIC SURGICAL ASSOCIATION CONGRESS, Honolulu, Hawaii, Nov. 7-19. Dr. Forrest J. Pinkerton, Suite 7, Young Bldg., Honolulu, Hawaii, President.

WORLD CONFEDERATION FOR PHYSICIAL THERAPY, Copenhagen, Denmark, Sept. 7-8.

WORLD MEDICAL ASSOCIATION, Stockholm, Sweden, Sept. 15-21. Dr. Louis H. Bauer, 2 E. 103d St., New York 29, N. Y., U. S. A., Secretary General.

EXAMINATIONS AND LICENSURE

NATIONAL BOARD OF MEDICAL EXAMINERS

NATIONAL BOARD OF MEDICAL EXAMINERS: *Parts I and II.* Various Centers. Sept. 5-7 (Part I only). Applications must be filed at least thirty days prior to an examination. Ex. Sec., Mr. E. S. Elwood, 225 S. 15th St., Philadelphia.

EXAMINING BOARDS IN SPECIALTIES

AMERICAN BOARD OF ANESTHESIOLOGY: *Oral.* Memphis, Oct. 14-17. Sec., Dr. Curtiss B. Hickcox, 80 Seymour St., Hartford 15, Conn.

AMERICAN BOARD OF DERMATOLOGY AND SYPHILOLOGY: *Written.* Chicago, March 1952. *Oral.* Chicago, May 1952. Final date for filing application is Feb. 1, 1952. Sec., Dr. George M. Lewis, 66 E. 66th St., New York 21.

AMERICAN BOARD OF INTERNAL MEDICINE: *Written.* Various centers, Oct. 15. Final date for filing applications was May 1. *Oral.* The schedule of oral examinations for 1951 has been arranged on a regional basis as follows: New York, Nov. 12-15, covering Maine, Massachusetts, New Hampshire, New York and Vermont. San Francisco, Oct. 22-24, covering Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming. Final date for filing applications is Sept. 1.

Only candidates who have not taken an oral examination can be admitted under the schedule arranged thus far.

Oral examinations in the subspecialties will be held at the same time and place and on the same distribution.

Exec. Sec., Dr. William A. Werrell, 1 W. Main St., Madison 3.

AMERICAN BOARD OF NEUROLOGICAL SURGERY: *Oral.* Chicago, Oct. 25-26. *Oral.* Chicago, May 1952. Final date for filing applications for the May 1952 examination is Jan. 1, 1952. Sec., Dr. W. J. German, 789 Howard Ave., New Haven 4, Conn.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY: *Written.* Feb. 1, 1952. Final date for filing applications is Nov. 1. *Oral.* Chicago, June 7-13, 1952. Final date for filing application is Feb. 1, 1952. Sec., Dr. Robert L. Faulkner, 2105 Adelbert Road, Cleveland 6.

AMERICAN BOARD OF OPHTHALMOLOGY: *Written.* Twenty-five centers, Feb. 4-5, 1952. *Oral.* Chicago, October 8-13. Sec., Dr. Edwin B. Dunphy, 56 Ivie Road, Cape Cottage, Maine.

AMERICAN BOARD OF ORTHOPAEDIC SURGERY: Final date for filing applications for the 1952 Part II examinations is Nov. 30, 1951. Sec., Dr. Harold A. Sofield, 122 S. Michigan Ave., Chicago 3.

AMERICAN BOARD OF OTOLARYNGOLOGY: *Oral.* Chicago, Oct. 8-12. Sec., Dr. Dean M. Lierle, University Hospital, Iowa City.

AMERICAN BOARD OF PEDIATRICS: *Oral.* Buffalo, Oct. 26-28. Ex. Sec., Dr. John McK. Mitchell, 6 Cushman Rd., Rosemont, Pa.

AMERICAN BOARD OF PLASTIC SURGERY: Denver, Oct. 27-29. Final date for filing of case reports is Aug. 30. Sec., Dr. Bradford Cannon. Office of the Board: 4647 Pershing Ave., St. Louis 8.

AMERICAN BOARD OF PREVENTIVE MEDICINE: *Written.* San Francisco, October 28. *Oral.* San Francisco, October 29. Sec., Dr. Ernest L. Stebbins, 615 North Wolfe St., Baltimore 5.

AMERICAN BOARD OF PROCTOLOGY: Philadelphia, Nov. 17-18. Sec., Dr. Louis A. Buie, 102-110 Second Ave., S.W., Rochester, Minn.

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY: *Oral.* New York, Dec. 17-18. Final date for filing applications is Sept. 1. Act. Sec., Dr. David A. Boyd Jr., 102-110 Second Ave., S.W., Rochester, Minn.

AMERICAN BOARD OF RADIOLOGY: *Oral.* Washington, D. C., Sept. 17-22. Sec., Dr. B. R. Kirklin, 102-110 Second Ave., S.W., Rochester, Minn.

AMERICAN BOARD OF SURGERY: *Written.* Various centers, Oct. 1951. Final date for filing applications was July 1. *Written.* Various Centers. March 1952. Final date for filing application is Dec. 1, 1951. Sec., Dr. J. Stewart Rodman, 225 S. 15th St., Philadelphia.

BOARD OF THROACIC SURGERY: *Written.* Various parts of the country. Sept. 14, 1951. Final date for filing applications was July 15. *Oral.* St. Louis, Nov. 2. Sec., Dr. William M. Tuttle, 1151 Taylor Ave., Detroit 2, Mich.

AMERICAN BOARD OF UROLOGY: Chicago, Feb. 9-13, 1952. Final date for filing applications is Sept. 1. Sec., Dr. Harry Culver, 30 Westwood Rd., Minneapolis 16.

DEATHS

Hamilton, Benjamin Wallace ✦ New York; University of Pennsylvania Department of Medicine, Philadelphia, 1901; since 1936 secretary of the Medical Society of the County of New York; member of the House of Delegates of the American Medical Association from 1937 through 1940, in 1945 and 1946, and in 1949 and 1950; fellow of the New York Academy of Medicine; secretary of the Physicians Loan and Relief Fund, treasurer of the Physicians Home and trustee of the New York Physicians Mutual Aid Association; for many years affiliated with Willard Parker Hospital; served as medical editor of *New York Medicine;* died June 4, aged 73.

Cassels, Louis Raymond, Worcester, Mass.; Tufts College Medical School, Boston, 1911; police surgeon; died in Worcester City Hospital May 30, aged 65, of carcinoma of the esophagus with metastases.

Coachman, Edwin Horace ✦ Muskogee, Okla.; University of Michigan Medical School, Ann Arbor, 1926; member of the American Academy of Ophthalmology and Otolaryngology; specialist certified by the American Board of Otolaryngology; formerly member of the school board; affiliated with Muskogee General and Oklahoma Baptist hospitals; eye, ear, nose, and throat consultant and surgeon, U. S. Veterans Administration Hospital; died May 24, aged 48.

Colby, Fred Bennett, Fitchburg, Mass.; Université de Lausanne Faculté de Médecine, Switzerland, 1937; member of the American Medical Association and the Industrial Medical Association; for many years member of the board of health; affiliated with Burbank Hospital, where he died May 24, aged 42, of coronary sclerosis.

Dinsmore, William Wert, Hartford, Conn.; Johns Hopkins University School of Medicine, Baltimore, 1907; served as associate medical director of the Travelers Insurance Company; died in Charlotte, N. C., May 17, aged 68, of cerebral hemorrhage.

Drew, Horace Rainsford, Jacksonville, Fla.; University of the South Medical Department, Sewanee, Tenn., 1901; member of the American Medical Association; past president of the Florida Medical Association and the Duval County Medical Society; veteran of the Spanish-American War; in 1916 elected to the associate staff at St. Luke's Hospital, where in 1926 he became chief of the department of medicine, and in 1933 chief of staff; died May 28, aged 74, of bronchiectasis and emphysema.

Farmer, Lucius Pierce, Stapleton, Ga.; University of Georgia School of Medicine, Augusta, 1906; served during World War I; died May 1, aged 70.

Gallion, William Earnest, Oakdale, Tenn.; Lincoln Memorial University Medical Department, Knoxville, 1909; served as mayor of Oakdale; head of the Selective Service for Morgan County during World War II; for many years company surgeon for the Southern Railroad; died in Knoxville May 26, aged 71, of cerebral hemorrhage.

Golitzin, Alexander V., Los Angeles; University of Moscow Faculty of Medicine, Russia, 1901; on the staff of Presbyterian Hospital-Olmsted Memorial; died May 4, aged 74, of hypertensive cardiovascular disease.

Greenwald, Samuel, New York; New York Homeopathic Medical College and Flower Hospital, New York, 1918; on the staff of Manhattan General Hospital, where he died June 9, aged 55, of coronary thrombosis.

Griffith, Charles Allen ✦ River Forest, Ill.; Rush Medical College, Chicago, 1908; director of the River Forest State Bank; on the executive staff at West Suburban Hospital in Oak Park, where he died May 25, aged 71, of carcinomatosis and diabetes mellitus.

Hicks, Louis Calvin, Indianapolis; Medical College of Indiana, Indianapolis, 1903; died May 28, aged 73, of rheumatic heart disease.

Holmgren, Knut David, Ottumwa, Iowa; Northwestern University Medical School, Chicago, 1910; veteran of the Spanish-American War; died in the Veterans Administration Hospital, Des Moines, May 28, aged 73, of bronchogenic carcinoma and congestive heart failure.

Howard, Everett Edmunds, Gainesville, Fla.; University of Louisville (Ky.) School of Medicine, 1913; member of the American Medical Association; served during World War I; formerly practiced in Peoria, Ill., where he was on the staffs of the Methodist and Proctor hospitals; director of student health, University of Florida Infirmary; died May 15, aged 64, of pulmonary embolus.

Jessner, Kurt Joachim, Fairfield, Maine; Ludwig-Maximilians-Universität Medizinische Fakultät, Munchen, Bavaria, Germany, 1909; member of the American Medical Association and the American Trudeau Society; assistant superintendent of the Central Maine Sanatorium; died in Waterville May 14, aged 65, of acute heart failure.

Knight, James Wesley, Madison, Wis.; Creighton University School of Medicine, Omaha, 1949; resident at St. Mary's Hospital; died May 12, aged 28, of brain tumor.

Larned, Samuel Francis, Syracuse, N. Y.; University of Pennsylvania School of Medicine, Philadelphia, 1912; member of the American Medical Association; died May 27, aged 64, of coronary occlusion.

Leonard, Lothair Lewis ✦ Asbury Park, N. J.; University of Vermont College of Medicine, Burlington, 1904; fellow of the American College of Surgeons; affiliated with Barre City Hospital in Barre, Fitkin Memorial Hospital in Neptune, and Monmouth Memorial Hospital in Long Branch; died May 17, aged 77, of coronary thrombosis.

Lewitin, Leo H., Brooklyn; Medizinische Fakultät der Universität, Wien, Austria, 1927; member of the American Medical Association; affiliated with Beth El Hospital and United Hospital, where he died March 17, aged 51, of infectious hepatitis.

Lowry, Nelson Horatio ✦ Chicago; the Hahnemann Medical College and Hospital, Chicago, 1910; fellow of the American College of Surgeons; affiliated with Illinois Masonic Hospital and Edgewater Hospital, where he died May 17, aged 66, of acute myocardial infarction.

Marchand, Malvin Carl, Oroville, Calif.; University of Kansas School of Medicine, Kansas City, 1943; member of the American Medical Association; served during World War II; died in Wells, Nev., May 19, aged 36, of injuries received in an automobile accident.

Milbee, Robert S., Sullivan, Wis.; Trinity Medical College, Toronto, Canada, 1900; died in Dalston, Ontario, Canada, March 15, aged 75, of chronic myocarditis and chronic pyelonephritis.

Reid, Rufus Tinsley, Syracuse, N. Y.; University of Virginia Department of Medicine, Charlottesville, 1911; member of the American Medical Association; died in the University Hospital May 26, aged 64, of cerebral hemorrhage.

Riess, John Turk, Red Budd, Ill.; Washington University School of Medicine, St. Louis, 1905; member of the American Medical Association; served during World War I; on the staff of St. Clement's Hospital; died June 20, aged 81, of heart disease.

Salzman, Jacob Yetter, Newark, Ohio; University of Pennsylvania School of Medicine, Philadelphia, 1909; member of the American Medical Association; died May 11, aged 71, of carcinoma.

✦ Indicates Fellow of the American Medical Association.

GOVERNMENT SERVICES

NAVY

Class of Flight Surgeons.—A naval flight surgeon class was graduated on Aug. 2 from the U. S. Naval School of Aviation Medicine, Pensacola, Fla. The class consisted of both regular and reserve medical officers. Having successfully completed 16 weeks of specialized training in the medical phase of aviation medicine, and six weeks of training in aircraft and helicopters, the graduates are now qualified for duty within the aeronautical organization of the Navy. Their primary mission will include the selection and the care of aviation personnel, the study of the aviator's operational problems, and continued research in the field of aviation medicine. Honor man in the class was Lt. (J.G.) E. J. Schoen of New York City, who compiled an academic average of 91.1 for the entire course.

Thirty student naval flight surgeons in the next class at the School of Aviation Medicine, accompanied by two faculty members, departed from Corry Field by air Aug. 13 for a four-day familiarization trip to various medical research centers of the Navy and Air Force. Visits will be made to the Human Acceleration Laboratory, Johnsville, Pa.; the Special Devices Center, Long Island; the Aero Medical Equipment Laboratory, Navy Yard, Philadelphia; and the Air Force Aero-Medical Laboratory at Wright-Patterson Field, Ohio. Field trips of this type are considered an essential part of the modern training of young naval flight surgeons, and were inaugurated by the School of Aviation Medicine in 1949.

Guest Lecturer at Naval Medical Center.—Dr. Leo H. Bartemeier, Detroit, Mich., president-elect of the American Psychiatric Association, was the guest lecturer at the Naval Medical School, Bethesda, Md., March 30. His subject was "The Attitude of the Physician."

Personals.—Rear Adm. Lamont Pugh, the Surgeon General, on June 9 addressed the annual dinner of the medical alumni of the University of Virginia at Charlottesville. Admiral Pugh departed July 6 on an inspection of Naval Medical Department facilities in the Pacific and Far East and will return to Washington by way of Alaska early in August.

Dr. Howard T. Karsner, medical research advisor to the Surgeon General, sailed for England June 29 to confer with the officer in charge of the London branch, Office of Naval Research. Dr. Karsner has also been designated the Navy delegate to the International Congress of Clinical Pathology, which is to be held in London July 16-20, where he will present a paper on "Pathology of Pulmonary Circulation." After visiting Germany in connection with research matters, he plans to return to the United States in early August.

Rear Adm. John Harper, MC, District Medical Officer, Third Naval District with headquarters in New York, retired on June 30 after 36 years of active duty. The Admiral's home address will be 4202 Yuma St., N.W., Washington, D. C.

Capt. Howard H. Montgomery, MC, USN, was placed on the retired list July 1 after 33 years of active military service. Captain Montgomery will be associated with the Blood Program of the National Red Cross in the Eastern Area Office, Alexandria, Va.

PUBLIC HEALTH SERVICE

German Physicians in Training.—Seven German physicians are in the United States for six months of advanced training under programs supervised by the Division of International Health of the Public Health Service. The training is conducted under a fellowship plan sponsored by the U. S. High Commissioner for Germany. They are Dr. Rudolf Haarstrick, preparing for a post with a child guidance clinic in the Bremen area on his return to Germany, who is studying psychiatric techniques and use of psychotherapy in child guidance clinics; Dr. Irene Haas, public health officer in Geisenheim, who is studying psychiatric techniques and use of psychotherapy in child guidance clinics; Dr. Karlheinz Hahn, public health officer in Darmstadt, who is studying public health practice and administration; Dr. Eugen Schildge, scientific assistant in the Psychiatric and Neurological Clinic, University of Freiburg, who is studying electroshock, psychotherapy, and other modern methods for treating mental illness; Dr. Gerhard Schorsch, chief medical officer of Bethel-Bielefeld Psychiatric Hospital and professor of neurology and psychiatry at the Bethel Theological College, who is studying modern psychiatric techniques, clinical and surgical, and United States methods of treating and caring for epileptics; Dr. Herbert Viefhues, psychiatrist at State Mental Hospital, Wieslock-Heidelberg, who is studying psychiatric techniques and the organization of mental health programs; and Dr. Siegfried Wagner, public health officer in Freising, who is studying public health administration.

Electrokymography.—Since radiologists and cardiologists first observed the movements of the cardiovascular silhouette on fluoroscopic screens, motions of the beating heart have been of intense interest in the study of heart disease. Researchers of Temple University School of Medicine and the Public Health Service, have developed the electrokymograph in a joint effort to discover a more adequate instrument for recording the movements of the heart and great vessels. Essential element of the device is a photomultiplier tube, which observes the movements of the heart as they appear on a fluoroscopic screen and translates the border movements and density changes to current changes. These current changes actuate a galvanometer to record a beam type of tracing on moving bromide paper. The record is called an electrokymogram. Recordings of the carotid pulse wave, the electrocardiograph, the phonocardiograph, and the electrokymograph can be made simultaneously to provide additional means for study and interpretation.

The first conference in the new field of electrokymography was held recently, and a monograph has been published by the National Heart Institute entitled "Electrokymography." The book consists of 22 scientific papers, with a discussion following each paper, and a complete bibliography. The conference was carefully planned to cover and give proper emphasis to the clinical, physiological, and technical aspects of electrokymography. A limited number of copies of the monograph may be secured without cost from the National Heart Institute, Bethesda 14, Md.

VETERANS ADMINISTRATION

Hospital News.—Dr. Gregory Pincus, Director of the Worcester Foundation for Experimental Biology, on March 2, addressed the staff at the Veterans Administration Hospital, Northport, L. I., N. Y., on the "Role of the Adrenal Cortex in Schizophrenia."——Dr. Nolan D. C. Lewis, professor of psychiatry, Columbia University, addressed the staff March 13, 1951, on the diagnosis of schizophrenia and its treatment.——Dr. Paul Hoch of the Psychiatric Institute, New York, addressed the staff on March 26 on "Personality Changes After a Lobotomy or Topectomy." On April 12 Dr. Sandor Rado, clinical professor of psychiatry at Columbia University, addressed the hospital staff on "Emergency Behavior."——Dr. H. Houston Merritt, professor of neurology at Columbia University, New York, addressed the staff April 26 on "The Use of ACTH in Nervous and Mental Diseases."

FOREIGN LETTERS

DENMARK

Correction of Speech Defects.—The publication in the near future of a textbook for teachers specializing in speech defects is just one of many signs that this particular problem is now receiving close attention in Denmark. With a population of barely four million, Denmark in 1930 had some 6,000 children suffering from defects of speech. The census yielding this figure was carried out by the Danish Department of Statistics, which undertook a survey of 451,000 children of school age. As many as 5,619 of these children (12.4%) had defects of speech. As this survey included only about 96% of all the children of school age, the above figure was raised to about 6,000. Stammering and incoordinated speech affected 2,270 of the 5,619, and stammering was found to be four times as common among boys as among girls. Among the 2,270 stammering children, there were only 89 who had received treatment at the state institute for speech defects and the majority had received no special treatment whatever.

These and many other disquieting facts emerging from this survey led the authorities to bestir themselves, and a special school with resident accommodation for 56 children and teaching facilities for 85 at a time was opened. Yet the calls made on the state institute for speech defects have continued to be so great that, as recently pointed out by Dr. Blegvad, there have been as many as 500 on the waiting list at one time. To meet what has become a veritable crisis, the authorities have developed an alternative scheme which promises well. It consists of a network throughout the country of carefully trained teachers who teach speech correction in the patient's home. The Danish Medical Association has cooperated with the Speech Teachers' Association in organizing an examining body responsible for the training of teachers specializing in speech correction. These teachers have a course of training of at least six months with an expert, spend 180 hours in the practice of teaching at the Institute, and also take part for a week in a special class. Candidates for these appointments must present evidence of an already fairly high educational standard. These teachers will to a certain extent enjoy the status of authorized masseurs, and the medical profession throughout Denmark is encouraged to make use of them. A list of them with the addresses of each is published as a supplement to a recent issue of the organ of the Danish Medical Association, *Ugeskrift for Laeger*. On this list there are between 80 and 90 names for Copenhagen and the surrounding districts alone.

Surgical Treatment of Gastric Ulcer.—At a meeting of the medical society in Copenhagen in 1944, a discussion of the comparative merits of the surgical and medical treatment of gastric and duodenal ulcer showed a definite swing in favor of the former. This trend is further illustrated by a follow-up study in 1949 of patients treated surgically during the period 1942-1945 at the Copenhagen City Hospital. The authors of this study, M. Björneboe, H. Faber, O. Mikkelsen, and E. Tobiassen, made a careful follow-up examination of 202 of the 207 patients discharged in the above-mentioned period. Cases of acute perforation were not included in this study, and the operation was usually a resection, a gastroenteroanastomosis being undertaken in only 30 cases. There were seven times as many men as women, and, while most of the patients undergoing resection were between the ages of 31 and 60, the age of most of those undergoing gastroenteroanastomosis was between 51 and 70. In nearly every case the chief indication for operation was pain. The operation mortality was 5.8% for the resections and 3.3% for the gastroenteroanastomoses. At the follow-up examination 86% of the resection cases and 83% of the gastroenteroanastomosis cases showed satisfactory recovery. Not one of the patients had died of hemorrhage or perforation after operation.

These findings are compared with those of N. B. Krarup, who in 1946 published an account of 665 patients receiving medical treatment in the period 1931-1938 at the Bispebjerg Hospital in Copenhagen. His follow-up study showed that 3% of his patients had died of hemorrhage or perforation during the observation period and that only 29% could be regarded as cured; 36% showed some improvement. Favorable as this comparison is for operative treatment, it does not tell the whole story. Since 1945 great advances have been made in the operative treatment of gastric and duodenal ulcer, owing to the availability of penicillin, to better narcosis, and to various other factors not operative before this year. In the five-year period 1946-1950, there were only 12 postoperative deaths among the 710 resection cases (1.7%) at the City Hospital, and in 1949 and 1950 there were only three postoperative deaths among fully 300 resection cases. It should also be noted that the 3% mortality from hemorrhage or perforation following conservative treatment had no counterpart in the surgically treated cases on record.

Centenary of Dr. Adolph Sell.—Born on Dec. 24, 1850, Adolph Sell came to be the founder and successful organizer of institutional treatment of epilepsy on a large and generous scale in Denmark. The son of a prosperous artisan, he qualified as a doctor in 1875, having passed his examinations with such distinction that his father financed his postgraduate tour to Vienna and Paris. On returning home, he did not pursue his further medical studies in the hospitals of Copenhagen but started general practice in the provinces, where he was so successful that he soon had to employ an assistant. By this means he was able to extend his postgraduate studies to Scotland and Germany. In the latter country he came under the influence Fr. v. Bodelswingh, who was in charge of a hospital setup consisting of many small houses surrounded by gardens; this sheltered epileptics, lunatics, and cripples, who were encouraged to live as natural a life as possible. Workshops in which these patients found employment were an innovation. At the age of 34, Sell printed a work entitled "Concerning the Significance of the Emotions as Causes of Disease." This work, submitted to the University of Copenhagen as a doctorate of medicine thesis, was rejected, presumably because it did not reflect the scientific standards of Dr. Sell's judges. It was perhaps this episode which some two years later inspired another work, in which Sell wrote among other things, "In science, psychology will appear as a new and great movement when materialism has perhaps played out its last ideal card: bacteriology."

In 1897, Sell called a meeting of his friends to discuss the creation of a colony for epileptics. An appeal was issued for funds, and a modest start was made with an epileptic picked up in the streets of Copenhagen. As the colony grew around this nucleus, Sell had to meet campaigns against him in the press, and on more than one occasion his colony was visited by inspectors looking for irregularities, which they could not find. When he died in 1921, and was succeeded by Dr. H. I. Schou, his colony had become a veritable country town with some 30 houses, a church, shop, laundry, and several hundred hospital beds. The colony was a private, self-supporting concern, to which neither the government nor the municipal authorities had contributed. In the report of this institution for the year 1948-1949, it was pointed out that Filadelfia is the only special hospital for epileptics in Denmark. While some 5% of Denmark's 14,000 epileptics are treated in Filadelfia and another 5% in various other hospitals, the remaining 90% continue to be treated at home by general practitioners.

The items in these letters are contributed by regular correspondents in the various foreign countries.

CORRESPONDENCE

DEATH FOLLOWING USE OF CURARE

To the Editor:—This letter is in reference to the case report submitted by Dr. H. Zimmerman in the June 30, 1951 issue of THE JOURNAL. This case of prolonged postoperative respiratory paralysis and death followed the administration of *d*-tubocurarine and syncurine® (decamethylene-1,10-bistrimethylammoniumdibromide) during ether anesthesia. The editorial heading of this report is entitled "Death Following Curare Administration."

On the basis of information submitted, it seems unlikely that *d*-tubocurarine is the cause of prolonged respiratory paralysis. In this instance *d*-tubocurarine and syncurine® have been loosely and inaccurately lumped together in the title. Several points should be mentioned to prevent confusion and misconception in the minds of readers. While both agents produce myoneural block and motor paralysis, *d*-tubocurarine acts in a distinctly different pharmacological manner than does syncurine.® "Decamethonium (syncurine) and *d*-tubocurarine cause neuromuscular block by fundamentally different mechanisms. Block by decamethonium is due to a persistent end-plate depolarization, analogous to an exaggeration of the normal excitant action of acetylcholine: block by curare is due to an antagonism to the normal action of acetylcholine" (Paton, W. D. M., and Zaimis, E. J.: Actions and Clinical Assessment of Drugs Which Produce Neuromuscular Block, *Lancet* **2**:568 [Nov. 18] 1950). In addition these two drugs should not be used on the same patient during surgery. "Curarization with *d*-tubocurarine almost completely abolished the response to the subsequent injections of C 10 (syncurine)" (MacFarlane, D. W., and co-workers: Evaluation of Curarizing Drugs in Man; Antagonism to Curarizing Effects of D-Tubocurarine and Decamethylene-Bis [Trimethylammonium Bromide], *J. Pharmacol. & Exper. Therap.* **99**:226 [June] 1950). The term curarization is best restricted to drugs which, like *d*-tubocurarine, act by raising the motor plate threshold to acetylcholine.

Prolonged respiratory paralysis has been mentioned in occasional cases following syncurine® (Harris, L. C., Jr., and Dripps, R. D.: The Use of Decamethonium Bromide for the Production of Muscular Relaxation, *Anesthesiol.* **11**:215 [March] 1950; Foldes, F. F., and Machaj, T. S.: Syncurine (Decamethonium-Bromide): Its Use with Pentothal-Sodium and Nitrous Oxide-Oxygen Anesthesia in Abdominal Surgery, *Anesthesiol.* **12**:366 [May] 1951). Similar cases have been revealed in personal conversations. As far as I am aware, such prolonged paralysis is not associated with the administration of *d*-tubocurarine in the dose used in this case. It would seem that adequate pulmonary ventilation should be sufficient therapy in the situation described. Although neostigmine and "tensilon" (a derivative of neostigmine) are effective pharmacological antidotes to *d*-tubocurarine, there is none at present against syncurine.® *d*-Tubocurarine is such a valuable agent that any lethal complication ascribed to it must be carefully evaluated. Unwarranted incrimination of curare as a cause of death will cause physicians to reject without proper reason an excellent adjuvant to anesthetic agents.

SAMUEL L. LIEBERMAN, M.D.,
581 Eggert Road,
Buffalo 15.

ITEMIZING OF PHYSICIANS' STATEMENTS

To the Editor:—I am very interested in the statement in the Secretary's newsletter urging doctors to itemize their bills. I think that they should go still further and itemize their charges for each office visit. With this in mind some years ago we adopted what we first called a charge slip but changed to services rendered because people regarded it as an invitation to charge their accounts rather than as an itemized statement. We also felt that patients who could sign for charge purchases in the department stores could sign the slip acknowledging the receipt of the services rendered. This has enabled us to avoid many disputed accounts such as when "Veda's" husband says he gave his wife money to pay the account or when apparently they just simply forgot they were in the office. This has eliminated many unpleasant instances in our practice because the husband who says that his wife paid the account or that they just can't remember ever being to us for any services cannot deny his or his wife's signature on the slip. In addition we itemize it in detail so that a patient knows exactly what services he received and is not astonished when he receives a lump sum bill for a complete physical examination with perhaps an electrocardiograph and laboratory work. Our patients are much better satisfied with this itemized statement for each visit and no longer do they feel that the doctor is holding them up when the bill is more than three or four dollars regardless of the services rendered.

In our area, where some of the roads are good and some are bad and where travel sometimes is difficult, a number of us have quit charging by the mile and merely charge by the hour of elapsed time necessary to care for that patient. We charge from $1.50 to $3.00 fee for an office call and $3.00 to $5.00 for a home visit as a basic charge, adding in other services rendered, such as a pelvic examination or a blood count or injection of penicillin, and on long home visits or procedures that require a good deal of time we simply bill for so many hours' service. Patients are used to it and we feel that it is much fairer in that we do not penalize a person who lives on a good road by charging the same fee we would if he lived on a bad road difficult to use.

This particularly applies to night calls when a few days later all the patient remembers is that you got up at night and made a home visit and completely forgets the extra 30 to 60 minutes you had to sit around to be sure the hypodermic medication had given relief. And it also lessens the burden of explanation when the six members of a family with acute food poisoning are seen, as I did not long ago, and each member requires a different size dose of morphine, atropine and other therapy. At the time they were so sick anything seemed reasonable to them. Two weeks later when the account was paid it would have been difficult to justify the charges necessary without explaining that it involved 2½ hours at night plus two injections for each of the six members of the family. I think that elaboration on this, which I do in my classes in general practice at the University of Louisville and Meharry, would be of assistance to many young physicians starting out in practice.

D. G. MILLER JR., M.D., Morgantown, Ky.

MALE BREAST CARCINOMA AND ESTROGEN THERAPY

To the Editor:—In a recent report by Dr. Charles C. Higgins and me on "Bilateral Carcinoma of the Male Breast After Estrogen Therapy" (*J. A. M. A.* **146**:7 [May 5] 1951), it was inferred that the bilateral breast malignancies might be due to carcinogenic effect on male breast tissue. Through the courtesy of the Crile General Hospital, however, it has recently been learned that at autopsy the neoplasms evidenced in the bladder and in the breast were indistinguishable histologically. It is impossible, therefore, to conclude that there was a positive relationship between estrogen therapy and the breast tumors, despite the strongly suggestive evidence at the time of biopsy.

JAMES A. MCCLURE, M.D.,
Central Bldg., Topeka, Kan.

MEDICAL LITERATURE ABSTRACTS

AMERICAN

A.M.A. Am. Journal Diseases Child., Chicago

81:753-872 (June) 1951

Trichobezoar in Children: Review of Literature and Report of Two Cases. S. Hurwitz and P. F. McAlenney.—p. 753.
Pediatrician's Role in Management of Personality Problems of Adolescents. W. A. Schonfeld.—p. 762.
Cortisone in Treatment of Sclerema Neonatorum. E. L. Kendig Jr. and E. C. Toone Jr.—p. 771.
Excretion of Creatine and Creatinine by Children. L. C. Clark Jr., H. L. Thompson, E. I. Beck and W. Jacobson.—p. 774.
Portable Humidifying Unit. R. M. Smith and R. Denton.—p. 784.
Expanding Scope of Oligophrenia: Increasing Range of Syndrome Associated with Mental Defect. R. Gibson.—p. 803.

American Journal of Surgery, New York

81:481-594 (May) 1951

*Krukenberg Tumors of Ovary. J. J. Berens.—p. 484.
Non-Puerperal Inversion of Uterus. H. W. Jones Jr.—p. 492.
Measurement of Blood Loss During Surgical Operations. J. J. Bonica and C. S. Lyter.—p. 496.
Photographs, Infrared Photographs and Transillumination Diagrams Illustrating Diagnosis and Treatment of Cervix Uteri. L. R. Thompson. —p. 503.
Intravenous Use of Pituitrin for Labor. S. Lubin, S. R. M. Reynolds, R. Waltman and others.—p. 509.
*Diagnostic Value of Differentiating Between Morphologically Identical Cells by Tissue Culture. M. E. Sano and C. T. Bello.—p. 515.
Prolongation of Spinal Anesthesia (75 to 100 Per cent) with Levophed Intrathecally: Preliminary Report. H. M. Ausherman.—p. 521.
Prefrontal Lobotomy for Relief of Intractable Pain. J. G. Lyerly.—p. 526.
Surgical Treatment of Extracerebral Hematoma in Acute Craniocerebral Injury. W. Klingensmith and H. C. Voris.—p. 533.
Congenital Malformations of Rectum and Anus: With Special Reference to Treatment of Associated Fistulas. E. E. Arnheim.—p. 538.
Combined Abdominoperineal Resection for Carcinoma of Rectum. M. B. Welborn.—p. 548.
Colorectal Polypectomy. S. S. Pasachoff.—p. 552.
Anesthetic Management for Massive Intra-Abdominal Resections. J. W. Uhl, H. M. Livingstone and J. G. Allen.—p. 554.
Surgical Management of Post-Thrombotic Syndrome with Reference to Use of Sympathectomy. G. H. Pratt.—p. 562.
Leg Ulcers of Vascular Origin and Their Therapy. E. J. Orbach.—p. 568.

Krukenberg Tumors of Ovary.—One of the most interesting and disputed points concerning Krukenberg tumors is the mode of spread from the primary focus to the ovaries, because there is a paucity of lesions along the path between the primary lesion and the ovaries. Four possible routes are commonly listed: (1) the lymphatic route; (2) peritoneal sedimentation with implantation of cells on the ovaries; (3) hematogenous spread, and (4) direct extension to the ovaries. Most investigators support the first or second of these theories. There is little evidence to support the hematogenous route of spread. The author says that in primary tumors of the lower abdominal cavity direct extension is possible, but most of the parent tumors that yield Krukenberg tumors of the ovaries are in the upper abdomen. He gives descriptions of five cases of Krukenberg tumors observed in 10 yr. at the Cincinnati General Hospital. The average age of these patients was 41 yr. One noteworthy case occurred in a girl, 13, the earliest age at which Krukenberg tumor has ever been reported. The malignant growth apparently developed in the premenarche period, which is characterized by great endocrine activity. The course from onset of symptoms until death was only about three months. The numerous metastases found at autopsy suggest that some of the secondary growths (in liver, lung, diaphragm, calvarium, and dura mater) resulted from vascular spread. Lymphatic spread probably accounts for the involvement of the regional lymph nodes, mesentery, and retroperitoneal tissues. The mode of extension from the primary tumor in the sigmoid to the ovary was not explained. The Krukenberg tumors in all five patients were considered to be secondary to gastrointestinal neoplasms. Two patients had carcinoma in the sigmoid colon; one had carcinoma of the hepatic flexure, and two had gastric ulcerations that were probably malignant.

Tissue Culture for Differentiation Between Morphologically Identical Cells.—In a patient with pleural effusion, where other methods had failed to disclose the cause of this condition, a tissue culture of cells in the pleural fluid made possible the diagnosis of a pleural endothelioma. There was a striking variation in the appearance of the cells in tissue culture 24 and 48 hr. after culture, as compared to the cells in sections of the centrifuged fluid. Results in this case led to studies on many other pleural effusions; the histories of three such patients and of one in whom lymph node tissue was cultured are presented in this paper. Illustrations accompanying each case report show side by side the photomicrographs of the cells in the centrifuged pleural fluid (or lymph node section) and those in the tissue culture. The method at first gave some unsatisfactory results in cases of pleural effusions obtained from advanced malignant lesions in which the histopathological diagnosis was evident. This is not surprising in view of all the toxic substances present. The use of Tyrode's solution to wash away the erythrocytes greatly increased the growth. The tissue culture method is intended primarily for obscure cases, and occasionally no additional information will be gleaned from it. However, until more reliable methods are available, the authors offer tissue culture as a diagnostic aid.

Bulletin of Johns Hopkins Hospital, Baltimore

88:395-498 (May) 1951

Effect of Adrenocorticotropic Hormone (ACTH) and Cortisone on Histamine Reactions and Anaphylactic Reactions in Guinea Pigs. S. W. Landau, W. A. Nelson and L. N. Gay.—p. 395.
Studies on Afibrinogenemia: I. Afibrinogenemia in Patient with Septic Abortion, Acute Yellow Atrophy of Liver and Bacteremia Due to E. Coli. C. L. Conley, O. D. Ratnoff and R. C. Hartmann.—p. 402.
Id.: II. Defibrinating Effect on Dog Blood of Intravenous Injection of Thromboplastic Material. O. D. Ratnoff and C. L. Conley.—p. 414.
*Streptomycin in Treatment of Tuberculous Pericarditis. D. Carroll. —p. 425.
Pathology of Osseous Changes in Cushing's Syndrome in Infant and in Adults. R. H. Follis Jr.—p. 440.
Modified One-Stage Hepatectomy in Dog: With Some Notes on Effect of Hepatectomy on Coagulability and Proteolytic Activity of Blood. R. C. Clay and O. D. Ratnoff.—p. 457.
"Giant Molecules" and Cholesterol in Relation to Atherosclerosis. A. Keys.—p. 473.

Streptomycin in Tuberculous Pericarditis.—Carroll analyzes the course of untreated tuberculous pericarditis in 71 patients and reports the results of streptomycin therapy in five additional patients. Of the untreated patients, 40.5% died of widespread tuberculosis, 8.5% died of cardiac failure, and 19.5% survived for five years or more. The fate of the others is unknown. Only three of the 21 patients alive five years or more after the original pericarditis had any signs or symptoms attributable to previous tuberculous pericarditis. Of the five streptomycin-treated patients, one became asymptomatic after a four-month course of therapy, one who received streptomycin for only two weeks succumbed to widely disseminated tuberculosis, and three showed signs of constrictive pericarditis after the systemic disease was brought under control. In these three patients early corrective surgical intervention was made possible by streptomycin therapy. Important factors in the recovery of these patients were the early institution of therapy and the continuation of bed rest and streptomycin therapy for long periods after surgical correction of constrictive pericarditis. The principal value of streptomycin in these cases lay in its ability, in adequate dosage, to prevent dissemination of tuberculosis.

The Association library lends periodicals to members of the Association and to individual subscribers in Continental United States and Canada for a period of five days. Three journals may be borrowed at a time. Periodicals are available from 1940 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied with stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted.

Circulation, New York

3:641-800 (May) 1951

Effect of Vegetable Fat Ingestion on Human Serum Cholesterol Concentration. E. A. Hildreth, S. M. Mellinkoff, G. W. Blair and D. M. Hildreth.—p. 641.
Ventricular Fibrillation Due to Digitalis Preparations: Review and Report of Two Cases Following Intravenous Administration of Acetyl Strophanthidin. C. D. Enselberg, J. P. Croce Jr. and B. Lown. —p. 647.
*Effect of Angiocardiography on Heart as Measured by Electrocardiographic Alterations. W. J. Zinn, D. C. Levinson, V. Johns and G. C. Griffith.—p. 658.
Studies Utilizing Portable Electromagnetic Ballistocardiograph: I. Abnormal HIJK Patterns in Hypertensive and Coronary Artery Heart Disease. H. Mandelbaum and R. A. Mandelbaum.—p. 663.
Normal Blood Pressure in Superficial Venous System of Man at Rest in Supine Position. A. Ochsner Jr., R. Colp Jr. and G. E. Burch. —p. 674.
*Effect of Local Application of Glyceryl Trinitrate (Nitroglycerine) on Raynaud's Disease and Raynaud's Phenomenon: Studies on Blood Flow and Clinical Manifestations. M. S. Kleckner Jr., E. V. Allen and K. G. Wakim.—p. 681.
Extensive Calcification of Myocardium: Report of Case. A. C. Ernstene and J. B. Hazard.—p. 690.
Digital Vascular Resistance in Normal, Polycythemic and Hypertensive States. M. Mendlowitz.—p. 694.
Kidney Function in Cor Pulmonale: Particular Consideration of Changes in Renal Hemodynamics and Sodium Excretion During Variation in Level of Oxygenation. A. P. Fishman, M. H. Maxwell, C. H. Crowder and P. Morales.—p. 703.
Blood Pressure in Unanesthetized Rat: I. F. Olmsted, A. C. Corcoran and I. H. Page.—p. 722.
Id.: II. Spontaneous Variations and Effect of Heat. F. Olmsted, A. C. Corcoran and I. H. Page.—p. 727.
Initial Vibrations of First Heart Sound. T. Counihan, A. L. Messer, M. B. Rappaport and H. B. Sprague.—p. 730.
Q-T Interval in Chronic Cor Pulmonale. J. K. Alexander, M. I. Ferrer, R. M. Harvey and A. Cournand.—p. 733.
Retrograde Conduction from Premature Ventricular Contractions, Common Occurrence in Human Heart. A. D. Kistin and M. Landowne. —p. 738.
Postural Electrocardiographic Changes in Healed Myocardial Infarction. B. L. Brofman, H. Feil, H. K. Hellerstein and A. M. Jones.—p. 752.
Abnormal Cardiac Rhythms Caused by Acetylcholine. D. Scherf and F. B. Chick.—p. 764.
Effects of Cortisone and ACTH on Acute Phase of Rheumatic Fever. A. R. Barnes.—p. 770.

Effect of Angiocardiography on Heart.—Six patients studied by angiocardiography or aortography were checked by a direct-writer type of electrocardiograph during the procedure. The diseases found consisted of pulmonary stenosis, coarctation of the aorta, aneurysm of the ascending aorta, ventricular septal defect (two cases), and atrial septal defect associated with complete transposition of the great vessels. Immediate ischemic changes, as evidenced by T-wave inversion, were induced by rapid injection of 75% sodium iodomethamate (neo-iopax®). Irritable ventricular foci with frequent and prolonged bursts of ventricular tachycardia were frequently produced. Both events are delayed in onset and may persist for at least one-half hour after the injection of sodium iodomethamate. Premedication with adequate amounts of quinidine or procaine amide appeared to lessen the hazard of the procedure. Retrograde aortography when indicated may not present so great a cardiac risk as angiocardiography, probably because less of the contrast medium contacts the myocardium. It is concluded that direct-writer continuous electrocardiographic observation during angiocardiography should be maintained at all times. It is cautioned that the procedure is diagnostic and not therapeutic. As angiocardiography is associated with a 0.4% to 1.0% mortality, the procedure should be surrounded by all possible safeguards.

GP (J. Am. Acad. Gen. Practice), Kansas City, Mo.

3:1-160 (May) 1951

*ACTH and Chronic Bronchial Asthma. M. S. Segal, J. A. Herschfus and L. Levinson.—p. 33.
Pathologic or Spontaneous Fractures. W. H. Bickel and J. R. Barber. —p. 41.
To Nurse or Not to Nurse. E. J. DeCosta, M. S. Mark and R. A. Reis.—p. 47.
When Children Won't Eat. L. Steine.—p. 53.
Splanchnicectomy in Hypertension. R. H. Smithwick.—p. 57.
Treatment of Leukemia. F. R. Miller.—p. 62.

Corticotrophin (ACTH) and Chronic Bronchial Asthma.—This is a report on the use of corticotrophin (ACTH) in the management of 20 patients with severe bronchial asthma who had been subject to asthmatic attacks for one to 30 yr. Most of these patients were in status asthmaticus, and all had shown poor response to intensive conservative treatment. An initial dose of 40 mg. was followed by 40 mg. six hours later; then 20 mg. was administered every six hours until maximum benefit had been observed for two days. The time interval was then increased to every eight hours for one to two days and from the fifth day on to every 12 hr. If adequate eosinopenia did not develop after 100 mg. had been given, the dosage schedule was increased. The total dose of a single course of therapy varied from 240 mg. to 900 mg., and the duration of treatment from two and a half days to 19 days. Two patients required three courses and three patients two courses of therapy. All but three of 27 courses of therapy were followed by partial or complete remissions. One patient did not respond satisfactorily to two courses of corticotrophin and one course of cortisone. Eighteen courses of therapy were followed by complete remissions lasting from nine days to seven months. In evaluating the continued therapeutic effect, the authors arbitrarily considered remissions that lasted less than one week as failures, those from one to two weeks as fair, those from two to four weeks as good, and those longer than four weeks as excellent. With this grading, the continued therapeutic effects must be regarded as failures in three cases, as fair in eight, as good in 10, and as excellent in six. Repeated, short intensive courses of therapy are more effective in long-term management than are attempts to prolong the initial remission with daily maintenance therapy.

Iowa State Medical Society Journal, Des Moines

41:169-208 (May) 1951

Dissecting Aneurysm of Aorta. H. J. Hartman and H. Shulman.—p. 172.
Longevity Studies: Length of Life and the Aged Population in Iowa. R. Ginzberg and W. C. Brinegar.—p. 174.
Osteoporosis, Review. P. W. Berney.—p. 182.
Medical Education in Time of National Emergency. S. W. Olson. —p. 185.
Hypertrophic Pyloric Stenosis: Case Report of Infantile Type Followed by Adult Type. J. W. Dulin and A. E. Ady.—p. 188.

41:209-244 (June) 1951

Gynecologic Endocrinology in General Practice. W. M. Allen.—p. 209.
Review of 50 Operated Cases of Protruded or Ruptured Intervertebral Discs in Lumbar Areas. H. G. Decker and J. E. Brennan.—p. 215.
Sterilizations Approved by Iowa's State Board of Eugenics 1949. C. J. Gamble.—p. 218.
Interstitial Myocarditis in Infancy: Report of Case. J. S. Downing. —p. 220.

Journal Lab. and Clinical Medicine, St. Louis

37:665-830 (May) 1951

Radioiron Studies in Case of Hemochromatosis. T. Alper, D. V. Savage and T. H. Bothwell.—p. 665.
Urinary Excretion of Gallium by Man and Animals. J. I. Munn, N. H. Walters and H. C. Dudley.—p. 676.
Further Studies on Recovery from Radiation Injury. L. O. Jacobson, E. L. Simmons, E. K. Marks and others.—p. 683.
Response of Serum Gamma Globulin Level and Complement Titer to Adrenocorticotropic Hormone (ACTH) Therapy in Lupus Erythematosus Disseminatus. J. H. Vaughan, T. B. Bayles and C. B. Favour. —p. 698.
In Vivo and in Vitro Effects of Aureomycin Hydrochloride on Syringospora (Monilia, Candida) Albicans. M. Moore.—p. 703.
Nocardia Asteroides: Studies of Its Pathogenicity and Drug Sensitivities. E. H. Runyon.—p. 713.
Reaction of Human Serum and Component Proteins of Human Plasma with Quarternary Ammonium Salt, Octab. R. F. Jacox.—p. 721.
Reaction of Human Serum with Quarternary Ammonium Salt: Results of Serial Study in Acute Rheumatic Fever. R. F. Jacox and R. G. Gale. —p. 728.
Estimation of Nonglucosamine Polysaccharides of Serum Proteins with Anthrone Reagent. M. M. Graff, E. M. Greenspan, I. R. Lehman and J. J. Holechek.—p. 736.
Twenty-Four Hourly Endogenous Creatinine Clearance as Clinical Measure of Functional State of Kidneys. A. A. Camara, K. D. Arn, A. Reimer and L. H. Newburgh.—p. 743.
Effect of Cortisone on Experimental Production of Arteritis by Passive Sensitization. S. G. Cohen and C. Moses.—p. 764.
ACTH-Like Effect of Fever in Man. W. M. Kirkendall, R. E. Hodges and L. E. January.—p. 771.
Effect of ACTH and Cortisone on Pneumococcal and Influenza Viral Infections in White Mouse. E. H. Kass, S. H. Ingbar, M. M. Lundgren and M. Finland.—p. 780.
Effect of Oxygen Tension and of pH on Sickling and Mechanical Fragility of Erythrocytes from Patients with Sickle Cell Anemia and Sickle Cell Trait. R. D. Lange, V. Minnich and C. V. Moore.—p. 789.

Journal of Nervous and Mental Disease, New York

113:377-470 (May) 1951

Observations on Homosexuality Among University Students. B. H. Glover.—p. 377.
Skin: Psychodynamic and Psychopathologic Concepts. S. H. Zaidens. —p. 388.
Self-Inflicted Dermatoses and Their Psychodynamics. S. H. Zaidens. —p. 395.
Part II. Treating Migraine by "Sleep-Rationing." M. Gans.—p. 405.
Self-Inflicted Pre-Frontal Lobotomy: Report of Case. G. A. Colom and M. H. Levine.—p. 430.
Study of Unstable Personalities After Combat. J. J. Klein.—p. 437.
*Cerebral Blood Flow and Metabolism in Psychoses of Senility. F. A. Freyham, R. B. Woodford and S. S. Kety.—p. 449.

Psychoses of Senility.—The 10 patients chosen for this study represent two types of organic disturbances: (1) psychosis with cerebral arteriosclerosis (six cases) and (2) senile psychosis (four cases). Differentiation between these two entities is difficult. The diagnosis of senile psychosis is usually based on certain behavioral characteristics that occur in the absence of noticeable vascular pathology, but, in cases of senile psychosis, it is difficult to exclude degenerative processes of the cerebral blood vessels. The case histories indicate that the 10 cases have in common progressive behavioral deterioration and psychotic changes of personality associated with senile organic disturbances. Cerebral blood flow was determined by the nitrous oxide method, with the use of a special gas mixture. Mean arterial blood pressure was obtained by means of a damped mercury manometer attached to a needle in the femoral artery. The authors calculated the cerebral metabolic rate in terms of cerebral oxygen consumption by multiplying the difference in the oxygen content between the arterial and internal jugular blood by the cerebral blood flow. In calculating the cerebrovascular resistance, a measure of the caliber of the cerebral vessels, the mean arterial blood pressure was divided by the cerebral blood flow. The data obtained strongly suggest that the senile psychoses are the result of a significant reduction in cerebral oxygen utilization on the basis of an increased cerebrovascular resistance and its resultant reduction in blood flow through the brain. There is no essential difference in this respect between the two clinical classifications of "psychosis with cerebral arteriosclerosis" and "senile psychosis." A comparable series of elderly persons without psychosis should be studied, for only in this manner could it be demonstrated that the psychosis depends on circulatory and metabolic changes.

Journal of Urology, Baltimore

65:693-936 (May) 1951. **Partial Index**

Teratoid Tumors of Testis. R. A. Moore.—p. 693.
Feminizing Adrenal Tumor in Adult Male. H. Mortensen and L. Murphy.—p. 709.
Abnormalities of Kidneys, Ureters, and Perinephric Fascia: Anatomic and Clinical Study. J. A. Benjamin and C. E. Tobin.—p. 715.
*Hydronephrosis in Infants and Children. M. Campbell.—p. 734.
Effects of Intrarenal Hydronephrosis on Components of Renal Cortex. C. L. Deming.—p. 748.
Pregnancy and Labor Complicated by Pelvic Ectopic Kidney. G. W. Anderson, G. G. Rice and B. A. Harris Jr.—p. 760.
Thoraco-Abdominal Incision in Urological Surgery. R. Chute.—p. 784.
Primary Carcinoma of Ureter. J. A. Taylor.—p. 797.
Physiology of Micturition. S. R. Muellner.—p. 805.
Consideration of Problems Incident to Performance of Uretero-Enterostomy: Report of Technique. W. F. Leadbetter.—p. 818.
Electrolyte Imbalance Following Bilateral Ureterosigmoidostomy. H. S. Doroshow.—p. 831.
Carcinoma of Bladder: Correlation of Pathology with Treatment and Prognosis. W. S. Kerr Jr. and F. H. Colby.—p. 841.
Technique of Retropubic Prostatectomy. E. Burns.—p. 856.
*Mortality of Transurethral Prostatic Resection. C. D. Creevy.—p. 876.
Relationship of Steroids to Some Problems in Prostatic Cancer and to Medicine in General. W. P. Herbst.—p. 883.
Preliminary Report on Clinical Use of Tace (Chlorotrianisene) in Treatment of Prostatic Carcinoma. P. G. Smith, T. W. Rush and A. T. Evans.—p. 886.

Hydronephrosis in Infants and Children.—The occurrence of hydronephrosis is reported in 828 infants and children. The condition was discovered at necropsy in 316 cases and was disclosed by urologic investigation during life in 512 patients. Bilateral hydronephrosis was observed in 359 cases (43.4%). Of the 512 patients, 49 refused treatment or did not receive it. Of those treated, 82 died and 84 were cured, i. e., urinary stasis was relieved, the urine sterilized, and renal function adequate to support life for a reasonable number of years was achieved. There was improvement in 169 patients. Thirty-seven in whom stasis persisted were therapeutic failures and the others were lost to observation. Hydronephrosis is the commonest abdominal tumor of childhood at which time it results oftenest from congenital causes. In rare instances the obstruction is acquired as in urinary calculus disease or spinal injury. The pathological changes are fundamentally those of renal destruction and are anatomically characterized by pelvicalyceal dilatation, parenchymal thinning, sclerosis, and destruction of secretory elements. The indications for complete urologic examination of children with hydronephrosis are many, but persistent or acute pyuria, pain, or a mass in the loin or abdomen, hematuria, and reflex vesical disturbances are the usual symptoms. The diagnosis is readily suggested by excretory urographic study and can be established by satisfactory retrograde and preferably bilateral pyelography. Treatment is surgical when indicated, but occasionally conservative therapy by instrumental dilation may be successful. In most cases operation is necessary. It may not always be radical, yet in a third to a half of the children in whom hydronephrosis has been clinically recognized, the severity of the renal damage necessitates total nephrectomy. With early diagnosis and proper treatment, most of these kidneys as well as the lives of many patients should be saved.

Mortality Rate in Transurethral Prostatic Resection.—Free hemoglobin formed in the bladder by contact between blood and the plain water used as irrigating fluid during transurethral prostatic resection may be driven into the circulation when large prostatic veins are opened. When this free hemoglobin reaches the kidneys, renal vasospasm results and may lead to severe or fatal renal damage, particularly in the presence of rapid loss of blood, hypotension, bacteremia, or preexisting renal damage. This reaction is prevented by the use of an isotonic irrigating solution, such as dextrose, aminoacetic acid, or mannitol, and the morbidity and mortality rates of transurethral resection of the prostate are consequently lowered. In a series of 1,000 consecutive cases in which transurethral resection was done by the author with dextrose and aminoacetic acid as the irrigating solutions, the surgical mortality rate was 0.6%; this is about as low as can be expected in surgical interventions on elderly men. The operative mortality rate was 5.3% in 2,435 open enucleations from many smaller series reported in the literature between 1945 and 1950. It seems reasonable to suppose that the difference between the mortality rate in the author's series and that of other series is due to the use of isotonic irrigating fluid. A mortality rate lower than that ordinarily attained by many experts with the open operations may be achieved in transurethral resection with the use of nonhemolytic solutions on patients who are, on the average, very poor risks.

Northwest Medicine, Seattle

50:401-480 (June) 1951

*Infantile Cortical Hyperostosis with Involvement of Ilium. C. A. Racely, J. B. Bilderback and W. Y. Burton.—p. 418.
Sunburn Prevention: Vanishing Cream Effectively Opaque to Actinic Rays. W. J. Hemphill.—p. 424.
Management of Respiratory Failure in Acute Poliomyelitis. R. W. Maxwell, J. Muenster and R. F. L. Polley.—p. 425.
Primary Carcinoma of Fallopian Tube. R. D. Forbes and B. L. Finlayson.—p. 429.
Banthine in Herpes Zoster. H. S. Brown, R. D. Reekie and W. J. Sinclair.—p. 432.

Infantile Cortical Hyperostosis.—It has been recognized that infantile cortical hyperostosis may be the result of poisoning with vitamin A. This paper presents the histories of four such children who were seen during the past three years at the Hospital for Children at the University of Oregon, Portland, Ore. All the children had received vitamin supplements. None were breast-fed. Two patients showed changes in the ilium not previously described. Clinical symptoms are of little differential value, since the general irritability and upset feeding habits are present in metabolic disease, infectious diseases, and hypertrophic pyloric stenosis. Tender, soft tissue swelling over the mandibles, scapulas,

clavicles or extremities requires roentgenographic examination of the underlying bone. Roentgenographic appearance is the best basis for early diagnosis. Subperiosteal proliferation of the mandible, ribs, clavicles, long bones, and scapulas is typical. Long bone changes are characteristically confined to midshaft and do not extend to the epiphyses. Early, the subperiosteal calcific density is homogenous and approximates the density of cortical bone. Later, calcification becomes coarse and trabeculated and decreases in density and extent. A history of concentrated fish liver oil intake above normal requirements is the clue to correct diagnosis. This disorder may be mistaken for syphilitic periostitis, osteomyelitis, and even for bone cancer, as in one of the cases described here.

Pediatrics, Springfield, Ill.

7:607-740 (May) 1951

Congenital Anomalies. J. Warkany.—p. 607.
Comparison of Pulmonary Hyaline Membranes in Vagotomized Rabbits with Those in Newborn Infants. H. C. Miller, F. C. Behrle and D. M. Gibson.—p. 611.
*Action of Alloxan on Hypoglycemic Infant. J. E. Griffith Jr., R. L. Jackson and R. G. Janes.—p. 616.
Relation of O_2 Consumption to Circulation in Different Stages of Infantile Malnutrition. E. Kerpel-Fronius, F. Varga, J. Vönöczky and K. Kun.—p. 623.
Omphalocele. C. M. Burgess, J. Palma and W. A. Myers.—p. 627.
Chylous Ascites in Infancy: With Report of Case with Vitamin A Absorption Studies. D. Gribetz and A. Kanof.—p. 632.
Volumetric and Microscopic Pattern of Bone Marrow in Normal Infants and Children: II. Cytologic Pattern. P. Sturgeon.—p. 642.
*Endocardial Sclerosis: Review of Changing Concepts with Report of Six Cases. H. W. Edmonds and W. B. Seelye.—p. 651.
*Tricuspid Atresia: Report of Three Cases and Evaluation of Diagnostic Criteria. H. L. Abrams and R. H. Alway.—p. 660.
Auriculotemporal Syndrome: Report of Case Developing in Early Childhood with Review of Literature. W. Pfeffer Jr. and S. S. Gellis.—p. 670.
Galactosemia in Infancy: Report of Case with Observation for 24 Months. J. W. DuShane and E. E. Hartman.—p. 679.
Aureomycin in Treatment of Ruptured Appendices in Children. B. S. Joslin and M. E. Drake.—p. 684.
Nephrotic Syndrome in Rats. W. Heymann and H. Z. Lund.—p. 691.
Electroencephalography of Newborn Infant: VI. Studies on Premature Infants. J. G. Hughes, B. C. Davis and M. L. Brennan.—p. 707.
Prevalence of Heart Disease in Toronto Children: 1948-1949 Cardiac Registry. J. H. Gardiner and J. D. Keith.—p. 713.
Acute Hemolytic Anemia Due to Ingestion of Naphthalene Moth Balls. J. V. Mackell, F. Rieders, H. Brieger and E. L. Bauer.—p. 722.

Action of Alloxan on Hypoglycemia.—A female infant aged 8 months with severe spontaneous hypoglycemia and associated convulsions was not significantly improved with epinephrine injections, and a subtotal pancreatectomy gave only temporary relief. Intravenous injections of alloxan monohydrate were then given for 20 days. Initially, the patient was given 25 mg. per kilogram of body weight, but this dose was increased to 60 mg. per kilogram by the end of this injection period. The intravenous injections of alloxan produced no untoward systemic effects, but the veins were rapidly sclerosed locally. The child had no convulsions during the 20 days she was receiving alloxan and remained well for five days after this treatment but had severe generalized convulsions on the sixth and again on the ninth day after alloxan was discontinued. Consequently, a second course of alloxan treatment was started immediately. The dosage was eventually increased to 75 mg. per kilogram of body weight. After eight days of treatment there was no definite improvement in her blood sugar values, and all veins that could be used were sclerosed. As a final attempt large doses of alloxan (150 mg. per kilogram of body weight as a 0.6% solution) were given for three days by subcutaneous route. This method of administration proved painful, and the fluid was absorbed slowly and produced hard, indurated areas that occasionally broke down. The clinical course after alloxan treatment was uneventful. The patient remained well and free from convulsions. The blood sugar values showed improvement, and the glucose tolerance also was improved. The response noted in this child with alloxan therapy indicates that the initial dose should be approximately 55 mg. per kilogram of body weight until a mild hyperglycemia is produced. Fourteen months after the last injection of alloxan the child had remained free of convulsions and her social developmental age was considered to be within normal limits. Blood sugar values obtained during the 14-month interval were improved over the prealloxan picture, although values below the normal fasting level have been observed.

Endocardial Sclerosis.—Sudden death is reported in six infants between the ages of 3 days and 20 months, in whom hypertrophy of the left side of the heart, thickening, opacity, and milky discoloration of the endocardium and varying degrees of distortion of the cardiac valves were outstanding features at necropsy. The ages of these patients and the lack of evidence of postnatal infection or inflammation in the history, physical examination, and necropsy suggest that the lesions observed were the result of an antenatal process, the nature of which is not definitely established. Microscopic examination of the affected areas showed dense collagenous-fibrous tissue in the place of normal endocardium, obviously a change of considerable duration and possibly referable to the time of the actual formation of the heart. The syndrome was characterized by radiologically demonstrable cardiac enlargement, nondiagnostic murmurs, and sudden death in infancy. The older concept of an inflammatory pathogenesis of so-called fetal endocarditis is rejected in favor of developmental origin of the lesions. The more recently proposed term "endocardial sclerosis" is preferred by the authors. As a group the cases reported may represent a distinct species of congenital cardiac malformation, perhaps analogous to the group of transpositions of the great arterial trunks of the heart. Cases of left-sided endocardial thickening with valve deformity, such as reported here, may find a theoretical common denominator in terms of segmental variation in tissue differentiation. Extensive fibroelastosis in the truncus segment of the embryo produces normally differentiated aortic and pulmonic trunks. Similar but less pronounced fibroelastosis in a portion of the bulboventricular loop would represent heterotopia resulting in the lesions of endocardial sclerosis.

Triscuspid Atresia.—Tricuspid atresia is one of the cyanotic forms of congenital heart disease that may be alleviated if additional pulmonary blood flow is provided. Because the antemortem diagnosis of tricuspid atresia may lead to corrective cardiac surgery, the criteria for diagnosis must be clearly delineated. Persistent pronounced cyanosis, a concave left upper cardiac border in the anterior-posterior roentgenogram, absence of right ventricular enlargement in the left anterior-oblique projection, and the substantiating electrocardiographic picture of left axis deviation have been the generally accepted diagnostic criteria. Awareness of their limitations is desirable. Three cases of tricuspid atresia in infants aged 5 weeks, 4 months, and 6 months, respectively, are reported. Pott's operation was performed on one of the three patients at the age of 1 yr. and was followed by pronounced and lasting improvement. The patient is alive and relatively well at the age of 3. The two other cases were fatal, one of which was characterized by the absence of left axis deviation on the electrocardiogram and the presence of roentgenologic signs apparently consistent with an increase in the size of the right ventricle. Angiocardiographic studies, however, were suggestive of tricuspid atresia. Although in most cases the classic findings will lead to an unequivocal diagnosis, it must be recognized that the combination of a congenital cardiac anomaly of the cyanotic type with left axis deviation is by no means pathognomonic of tricuspid atresia. Conversely, the absence of left axis deviation on the electrocardiogram does not exclude the possibility of this disease. Similarly, roentgenologic studies need not be conclusive. The presence of an underdeveloped right ventricle may be obscured in the conventional examination. In atypical cases angiocardiography may be the only method of establishing the diagnosis conclusively. For the intensely cyanotic young infant whose immediate prognosis is poor, special diagnostic procedures should be performed, whenever conventional methods have failed to clarify the nature of the anomaly. Although some risk is attached to these procedures, the danger may be far less than in conservative management of such cases.

Postgraduate Medicine, Minneapolis

9:375-460 (May) 1951

Treatment and Prognosis in Leukemias and Allied Disorders. C. C. Sturgis.—p. 375.
Some Practical Pointers About Cross-Eye. E. Krimsky.—p. 383.
Preoperative Evaluation of Toxic Goiter Patient. W. P. Kleitsch.—p. 394.
Thyroid Disease Today. F. H. Lahey.—p. 400.
Medical Aspects of Hypertension. W. R. Adams.—p. 408.
Thyroiditis, Simple Goiter and Carcinoma of Thyroid. G. Crile Jr. —p. 412.
Causes and Treatment of Menopausal Bleeding. J. I. Brewer.—p. 419.

9:461-550 (June) 1951

The Bleeding Nipple. J. W. Cline and P. R. Westdahl.—p. 461.
Anorectal Examinations in General Practice. M. R. Hill.—p. 467.
Complications of Third Stage of Labor. R. E. Campbell.—p. 477.
Appendicitis and Cancer. C. Costello and J. Saxton.—p. 482.
Diagnosis and Treatment of Ileitis. C. W. Mayo.—p. 487.
Syndrome of Large, Pale Ovaries and Its Differentiation from Adrenogenital Syndrome and Cushing's Disease. R. B. Greenblatt.—p. 492.
Pathologic Physiology of Mitral Stenosis. R. V. Ebert.—p. 501.

Public Health Reports, Washington, D. C.

66:655-694 (May 25) 1951

Evaluation of Detergents: IV. Correlation of Washing Performance with Dissolving and Wetting Ability. C. C. Ruchhoft and F. I. Norris. —p. 655.
Poultry Diseases as Public Health Problems. C. A. Brandly.—p. 668.

66:695-724 (June 1) 1951

Tuberculosis Studies in Muscogee County, Georgia: III. Tuberculosis Mortality Following Community-Wide X-Ray Survey. G. W. Comstock and M. H. Burke.—p. 695.
Secondary Radiation Limits in Photofluorography. W. W. Van Allen. —p. 712.

66:725-756 (June 8) 1951

Weight Control—Simplified Concept. A. L. Chapman.—p. 725.
Sources of Morbidity and Mortality Material in Industrial Health. V. M. Trasko.—p. 732.
Poliomyelitis, Hospital Inquiry, England and Wales, 1949. W. H. Bradley and A. H. Gales.—p. 740.

South Carolina Medical Assn. Journal, Florence

47:157-186 (May) 1951

*Report on Safety and Therapeutic Effectiveness of Parenterally Administered Chloromycetin by Intramuscular and Intravenous Routes. V. Moseley and W. G. Baroody.—p. 157.
Common Pitfalls in Surgical Anesthesia. J. M. Brown.—p. 160.
Alcoholism, Challenging Problem of Today. O. R. Yost.—p. 162.
Radiological Diagnosis of Intracranial Tumors. H. S. Pettit.—p. 167.

Evaluation of Parenteral Chloramphenicol Therapy.—The clinical and therapeutic effects and the serum levels of chloramphenicol (chloromycetin®) were studied in 38 patients with various infections to whom this drug was administered intravenously and/or intramuscularly. The usual dose employed intravenously was 0.5 to 1 gm. of chloramphenicol in 2 to 4 cc. of acetyl dimethylamine added to 250 to 500 cc. of dextrose or isotonic sodium chloride solution and given at six-hour intervals. The same initial dose of chloramphenicol dissolved in acetyl dimethylamine but not diluted in dextrose or isotonic sodium chloride solution, with additional maintenance doses of 250 mg. to 0.5 gm. of chloramphenicol at six-hour intervals, was given intramuscularly. Results showed that chloramphenicol when dissolved in acetyl dimethylamine may be safely administered intravenously or intramuscularly. As yet, no ill effects by these parenteral routes, such as allergic or toxic reactions, were observed. There were no signs of bone depression or neutropenic reactions or evidences of hepatic or renal damage. Chloramphenicol was administered to some of the patients for three weeks by intramuscular route with no evidence of sensitization or toxicity developing in any during that period. Infants and aged persons as well as young adults were among the patients treated. This is the first reported instance in which chloramphenicol dissolved in acetyl dimethylamine was employed for intramuscular use. In most of the patients the response to intramuscularly administered chloramphenicol was satisfyingly prompt. The injection should be made deep in the muscle, so that local tissue necrosis will not occur and also so that discomfort at the time and site of injection will be reduced. Both the oral and the intramuscular routes showed the same phenomenon, in which the blood levels rose to their maximum concentrations up to the sixth hour after administration and then fell off sharply in the next two hours. When the maintenance dose, usually 250 mg., given either orally or intramuscularly, was repeated at six-hour intervals, a sustained level of 5 γ per cubic centimeter could be maintained day after day. Longer intervals between injections resulted in a decrease in concentration below that theoretically desirable.

Surgery, St. Louis

29:803-970 (June) 1951

Changes in Sympathectomized Extremity with Anesthesia. D. A. Felder, R. R. Linton, D. P. Todd and C. Banks.—p. 803.
Surgical Treatment of Varicose Veins Associated with Subcutaneous Fibrosis. A. V. Migliaccio and E. A. Ricci.—p. 811.
*Appraisal of Bilateral Superficial Femoral Vein Ligation in Preventing Pulmonary Embolism: Application of Procedure in 100 Controlled Cases of Fracture of Femoral Neck. W. H. Erb and F. Schumann. —p. 819.
Effect of Increased Arterial Blood Flow to Liver on Mortality Rate Following Hemorrhagic Shock. E. B. Hay and J. K. Webb.—p. 826.
Effect of Intravenous Sodium Dehydrocholate on Mortality Rate Following Hemorrhagic Shock. E. B. Hay.—p. 829.
Cystic Duct Stump Syndrome. J. H. Garlock and E. S. Hurwitt.—p. 833.
Experimental Method of Repairing Strictures Involving Common Hepatic Bile Duct at Hilus. J. R. Scheibe.—p. 842.
Occult Injury to Pancreas Following Splenectomy. I. D. Baronofsky, W. Walton and J. F. Noble.—p. 852.
Use of Iliopsoas Muscle and Autogenous Fascias in Repair of Certain Inguinal and Femoral Hernias. C. C. Burton.—p. 858.
Treatment of Fractures of Femur with Heavy, Large Cored, Three-Flanged Medullary Nail. J. O. Lottes.—p. 868.
Transsternal Approach for Exposure of Anterior Mediastinum: Report of Case of Constrictive Pericarditis in Which This Incision Was Employed. W. H. Muller Jr.—p. 885.

Bilateral Femoral Vein Ligation for Prevention of Pulmonary Embolism.—In 1,650 autopsies, 167 cases of pulmonary embolism were discovered, an incidence of 10.3%. The embolism was considered of sufficient magnitude to have at least contributed to the fatality in 87 patients. This would indicate that in roughly 5% of the cases in which autopsy was performed, pulmonary embolism could be considered as a major factor in the cause of death. The highest incidence (24 of the major embolic cases) was observed in the orthopedic department, so a group of cases from this department was selected for evaluation of bilateral superficial femoral vein ligation in preventing pulmonary embolism. In all, 100 patients with recent fracture of the femur were studied, of whom 50 were subjected to ligation and 50 were not. It appeared that in aged patients with fracture of the neck of the femur, bilateral superficial femoral vein ligation, in itself, does not lower the mortality rate due to pulmonary embolism nor the incidence of nonfatal pulmonic episodes. The ligation in such patients is frequently followed by thrombosis arising in the proximal femoral vein compartment, and pulmonary embolism is a common occurrence.

Virginia Medical Monthly, Richmond

78:223-280 (May) 1951

Carcinoma of Breast: Radical Mastectomy, Oophorectomy and Hormone Therapy. G. W. Horsley.—p. 226.
Stenosis of Anus of Functional Origin—Habital Use of Laxatives. C. B. Morton II.—p. 232.
Present Trends of Collapse Therapy in Tuberculosis. G. A. Chapman and F. B. Stafford.—p. 236.
Some Aspects of Human Infertility. F. W. Sutterlin.—p. 239.
Some New Concepts on Treatment of Bleeding in Third Trimester of Pregnancy. T. C. Todd.—p. 246.
Torsion of Testicle. W. J. Frohbose.—p. 250.
Pregnancy in Bicornate Uterus Complicated by Incarcerated Non-Pregnant Horn: Case Report. W. J. Hagood and W. L. Eastlack.—p. 255.
Medical Psychotherapy. K. W. Berblinger.—p. 259.
Psychological Reaction to Unaesthetic Nose. W. L. Gatewood.—p. 261.

FOREIGN

Archives of Disease in Childhood, London

26:97-194 (April) 1951

Declining Birth Rate in Sweden. A. Wallgren.—p. 97.
Physiological Hyperbilirubinaemia in Newborn and Reservoir Function of Spleen. Y. Åkerrén.—p. 106.
Renal Function of Infants Delivered of Toxaemic Mothers. D. C. A. Bevis and S. F. Schofield.—p. 109.
Observations on African Children. E. A. Beet.—p. 119.
*"Growing Pains": Clinical Study of Non-Arthritic Limb Pains in Children. J. M. Naish and J. Apley.—p. 134.
*Oil Aspiration Pneumonia in Infancy. F. S. W. Brimblecombe, L. Crome and J. P. M. Tizard.—p. 141.
Localized Outbreak of Tinea Capitis (M. Audouin) in Northern Ireland. J. M. Beare and E. A. Cheeseman.—p. 149.
Congenital Hemihypertrophy with Lymphangioma. J. A. Williams. —p. 158.
Congenital Obstruction of Posterior Urethra. J. Wainwright.—p. 162.
Intestinal Pneumatosis in Infants. J. Wainwright.—p. 164.
Two Cases of Atresia of Small Intestine in Newborn. A. E. Stevens. —p. 166.
Aneurysm of Ductus Arteriosus and Umbilical Haemorrhage in Newborn. B. Lennox and D. MacCarthy.—p. 169.
Congenital and Neonatal Thrombocytopenic Purpura. H. N. Robson and C. H. M. Walker.—p. 175.
Gangrenous Purpura and Its Occurrence in Meningococcal Septicaemia. H. G. Dunn.—p. 184.

"Growing Pains": Limb Pains in Children.—Limb pains occur oftener in children than in adults, and so such pains have been dubbed "growing pains." Yet the ages 8 to 12, when the pains are commonest, are one of the "filling-out" intervals between two periods of rapid growth. A further criticism of the term is that the commoner sites of pain do not correspond to the sites of maximal growth. Moreover, it appears improbable that pains as intermittent as those described could be related to a process as gradual as that of growth. Naish and Apley questioned 721 children in routine examinations at school clinics regarding the occurrence of limb pains. Thirty (4.2%) of the children were found to have persistent nonarthritic limb pains. By comparison with controls, a family history of rheumatic disorders was found to be significantly commoner in children with such pains. Minor emotional disturbances also seemed common. Most of the children with limb pains fell into one of two groups. First, diurnal fatigue pains occurred in children in association with exertion, fatigue, and postural defects. In this group emotional disturbances were common, and there was a family history of rheumatic disorders. Second, paroxysmal nocturnal pains occurred in children who were more stable emotionally but who came from families in whom similar pains were common. This familiar occurrence and the fact that cold and damp conditions seemed to play a part suggest the possibility of an abnormal familial response to atmospheric conditions, but positive evidence for this is lacking. These studies suggest that limb pains, even when manifest organic disease has been excluded, comprise more than one single clinical entity. Psychic factors play an important part, but this is only one facet of the problem. Data are required regarding familial responses to atmospheric changes, and the familial relationship, if any, between pain and psychic aberrations. The term "growing pains" should be discarded, since the pains have no demonstrable connection with growth.

Oil Aspiration Pneumonia in Infancy.—This paper reports the case of a boy who was hospitalized at 8½ months with a complaint of weight loss, stertorous breathing, and hyperhidrosis for one month. He was successfully breast-fed for three months and when weaned was given a half-cream proprietary dried milk preparation in six and then five feedings per day. He was also given one teaspoonful of cod liver oil daily and unsweetened orange juice, but the diet was seemingly inadequate. He became constipated and from the age of 6 months until his admission to hospital was given three teaspoonfuls of liquid petrolatum (medicinal paraffin) daily. From 7½ months his mother noticed that he had rapid, noisy breathing, especially at night. A roentgenogram of the chest revealed diffuse parenchymal inflammatory changes of a pneumonic type, but the possibility of lipid pneumonia was not considered until the post-morten examination, at which a thin film of oil was found covering the mucous surfaces of the trachea and bronchi. From chemical and histological examinations it became clear that liquid petrolatum was the oil mainly responsible for the pneumonia, but the finding in the air passages of large oil droplets staining with osmic acid suggests that a terminal aspiration of food fats may have occurred. The literature furnishes no information on the relative dangers of nasal or oral administration of medicinal paraffin to infants. In many cases both routes have been involved. However, it is clear from cases of lipid pneumonia like the one here reported, in which nose drops were not used, that oral administration alone may result in aspiration. A healthy infant may be able to take liquid petrolatum by mouth without harmful effects, but its use is contraindicated in infants who resist oil administration, who are suffering from dysphagia or cough, or who are debilitated as the result of illness or congenital deformity. These warnings also apply to the administration of cod liver oil.

An asterisk (*) before a title indicates that the article is abstracted. Single case reports and trials of new drugs are usually omitted.

Archivum Chirurgicum Neerlandicum, Arnhem

3:1-80 (No. 1) 1951. **Partial Index**

Surgical Experience of Cholelithiasis. W. F. Suermondt.—p. 3.
Aneurysm of Arteria Pancreatico-Duodenalis. L. W. van Ouwerkerk. —p. 11.
*Experimental Researches into Hypothermia as Aid in Surgery of Heart: Preliminary Communication. I. Boerema, A. Wildschut, W. J. H. Schmidt and L. Broekhuysen.—p. 25.
Experiments on Disturbed Micturition in Cases of Adenoma Prostatae. J. Glazenburg.—p. 35.
Conservative Treatment of Perforated Peptic Ulcer. E. A. van Slooten. —p. 52.
One-Stage Resection of Thoracic Oesophagus for Carcinoma Localized Above Aortic Arch, Oesophagogastrostomy. J. F. Nuboer.—p. 57.

Hypothermia in Heart Surgery.—The difficulties and obstacles of intracardiac surgery are discussed, and means of overcoming them are evaluated. The devices designed to act as artificial hearts provide the oxygen-poor blood with oxygen and maintain systemic circulation, at least the portion supplying the brain. These apparatuses are complicated and in consequence are subject to disturbances that may quickly endanger life. Boerema and associates therefore decided to eliminate the need for an artificial heart by reducing as much as possible the amount of oxygen required by the brain and other tissues. They accomplished this by reducing the body temperature. They describe their own studies on animals and mention the efforts made by others to accomplish cooling. They found that by considerable cooling, the metabolic rate in animals dropped so far that the brain could dispense with the circulation of the blood for a period three times as long as is normally possible. There was ample time to open the heart, which had been almost drained of blood by clamping the venae cavae, and for performance of an intracardial operation under direct vision. This method may eliminate the necessity for an artificial heart in cardiac surgery.

Arquivos de Clínica, Rio de Janeiro

12:141-226 (March) 1951. **Partial Index**

*Nitrogen Mustard in Treatment of Hodgkin's Disease, Lymphosarcoma, Leukemia and Similar Diseases. J. de Lorenzo and P. Jannini.—p. 141.

Nitrogen Mustard in Hodgkin's Disease.—The authors administered nitrogen mustard to six patients with Hodgkin's disease, lymphosarcoma or myxoma. Intravenous injections of 0.1 mg. of nitrogen mustard per kilogram of body weight up to a total daily dose of 5 and 6 mg. were given either daily or every other day for a series of two to six injections. The three patients with Hodgkin's disease were in an advanced stage when the treatment started. The first patient has been under observation for three years. The disease was resistant to roentgen treatment, but after three series of nitrogen mustard treatments at intervals of several months, the patient was able to return to work. Several months after apparent cure his symptoms recurred intermittently, so that he required further treatment. A total of six series of injections was given in three years. He is now relatively well, his blood is normal, and he is still working. The other two patients were very ill when the treatment was started. They died from agranulocytosis after having received only two and five injections. One patient with lymphosarcoma of the pharynx and neck,

who had not responded to roentgen treatment, improved after each of two series of injections and returned to work. He subsequently died suddenly from acute hemorrhage from the tumor. In the other patient with lymphosarcoma spectacular improvement occurred after a series of four injections. The patient was able to resume work, and is still working and in good general condition one year and nine months after treatment. The patient with roentgen-resistant myxosarcoma of the psoas muscle with pleuropulmonary metastases and with clinical symptoms and blood changes of angina agranulocytotica had a series of treatments in a week. Two weeks after treatment he died in collapse. In all the aforementioned cases fever and malaise disappeared and the tumors rapidly regressed after treatment.

British Journal of Social Medicine, London

5:1-72 (Jan.) 1951

Study of Weight Gain in First Year of Life. J. Parfit.—p. 1.
*Spread of Tuberculosis from House to House. J. Webb and A. Stewart. —p. 13.
Risk of Stillbirth in Twin Pregnancy Related to Sex and Maternal Age: Analysis of 90,386 Twin Maternities. C. R. Lowe and R. G. Record. —p. 34.

House to House Spread of Tuberculosis.—This investigation was induced by the observation that many tuberculous patients lived next door to one another. It was based on statistics for Northampton, which is comparable in standard of living and population structure to other towns of the same size in England and Wales. Over a period of 28 years (1921-1948) tuberculosis was reported from 2,871 houses. Approximately 20% of the affected houses were grouped by two or three. The number of next-door pairs of houses that would have been affected in a random distribution of the cases was calculated by formulas from the mathematical theory of the random distribution of points in one dimension. Allowance was made for differences between good, fair, and poor housing, but only the interrelationships of houses on the same side of a street were taken into consideration. The number of affected persons in houses next door to one another was found to be significantly greater than the number to be expected had the cases been randomly distributed. It was also found that for any period up to 12 years the number of pairs of cases reported from the same house and from next-door houses was significantly in excess of the number to be expected from pure chance.

British Medical Journal, London

1:1157-1216 (May 26) 1951

*Effect of Cortisone on Survival of Skin Homografts in Rabbits. R. E. Billingham, P. L. Krohn and P. B. Medawar.—p. 1157.
Inherited Immunity. H. J. Parish.—p. 1164.
Hypothyroidism in Childhood. F. Braid.—p. 1169.
*Experimental Study of 79 Cases Showing Early Post-Gastrectomy Syndrome. T. J. Butler and W. M. Capper.—p. 1177.
Thyroid Activity in Mental Patients: Evaluation by Radioactive Tracer Methods. M. Reiss, R. E. Hemphill, R. Maggs and others.—p. 1181.
Acute Unilateral Dacryoadenitis: Report of Four Patients. P. Wilson. —p. 1183.
Bornholm Disease. T. Geffen.—p. 1185.
Tuberculosis of Liver Treated with Streptomycin. I. D. Melville.—p. 1187.

Cortisone and Skin Grafts.—The daily subcutaneous administration of 10 mg. of cortisone acetate to adult rabbits of either sex weakens the primary healing of autogenous or homologous grafts, delays their vascularization and the cellular proliferation consequent on it, and retards their histological reorganization. The contracture of graft-bearing areas is retarded by cortisone treatment but proceeds eventually to the same degree as in untreated animals. The administration of cortisone lengthens the life of skin homografts in rabbits by a factor of three or four. This is thought to be due partly to a nonspecific reduction of the graft's ability to elicit an immune response but mainly to the reduction of the response itself. The survival time of homografts in rabbits already made specifically immune by an earlier grafting from the same donor is little lengthened by the administration of cortisone. It is therefore concluded that cortisone affects the systemic development rather than the local fulfilment of the immune response.

Causes of Post-Gastrectomy Syndrome.—To determine the cause of the unpleasant symptoms that sometimes follow partial gastrectomy, Butler and Capper studied 79 patients with post-gastrectomy syndrome after the Polya type of gastric resection. They found that several different mechanisms were involved. Distension of the jejunum with a balloon reproduced the sensation of central abdominal fulness but not the vasomotor effects, namely, the feeling of warmth, sweating, tachycardia, and palpitation, which are even more distressing. These were reproduced when a bag containing an amount of mercury equal in weight to that of a heavy meal was inserted into the remnant of the stomach, and they were relieved when the patient was shifted from the upright to the supine position. The shift in position did not, however, abolish the sensation of fulness due to the balloon. Splanchnic block abolished both types of symptom, suggesting that they are mediated by the sympathetic rather than by the vagus nerves. Radiologic examination following a barium meal demonstrated that inert substances such as barium are capable of producing the syndrome, that symptoms may occur before jejunal filling has begun, that there is no significant difference in the incidence of rapid or delayed emptying or afferent-loop filling in patients with or without the syndrome, and that there is greater descent of the gastric stoma in changing from the supine to the erect position in patients with the syndrome than in those without. Glucose tolerance tests showed no significant differences in the blood sugar curve of those with and without the early syndrome, so that hypoglycemia cannot be regarded as a cause of these symptoms.

Giornale di Clinica Medica, Parma

32:249-376 (March) 1951. **Partial Index**

Panhemagglutination at High Temperature, Cryoglobulinemia and Anomalies of Erythrocyte Sedimentation in One Case of Sepsis Lenta. V. Grifoni and G. Gasparini.—p. 249.
*Behavior of Hydrochloric Acid Secretion in Cardiopathies. D. Furbetta, V. Giunti and P. Solinas.—p. 277.
Roentgenologic Aspect of Traube's Tympany. W. Telò.—p. 287.

Hydrochloric Acid Secretion in Cardiopathy.—The hydrochloric acid secretion of the stomach was studied in 117 patients with cardiopathy, 41 with compensated mitral and 24 with compensated aortic lesions, 18 with compensated hypertension, 21 with decompensated cardiopathy, and 13 with various forms of compensated cardiopathy. The gastric juice was examined before and after meals; histamine stimulation was employed in patients with achlorhydria. The hydrochloric acid secretion was below normal in 67% of the patients, normal in 26.4%, and above normal in 6.6%. Two examinations of the gastric juice at intervals of 15 days showed a definite drop of the hydrochloric acid secretion in two patients in whom the cardiopathy continued to develop during the period of observation. Thus cardiopathy seems to be associated with hyposecretion of hydrochloric acid. It is suggested that this anomaly is caused by changes in the circulatory dynamics of the gastric secretive apparatus. It may be a manifestation of hypoxemia of the stomach tissues.

Journal of Physiology, Cambridge

113:129-398 (April 26) 1951. **Partial Index**

Pattern of Emptying of Human Stomach. J. N. Hunt and W. R. Spurrell. —p. 157.
Secretory Pattern of Stomach of Man. J. N. Hunt.—p. 169.
*Effect of Intra-Gastric Instillation of Meal on Gastric Function in Man. J. N. Hunt and I. Macdonald.—p. 185.
Electrical Activity of Cortex Accompanying Movement. J. A. V. Bates. —p. 240.
Stretch Receptor Discharges During Muscle Contraction. C. C. Hunt and S. W. Kuffler.—p. 298.
Estimation of Chorionic Gonadotrophin Using Male British Toad Bufo Bufo. J. F. D. Frazer and F. X. Wohlzogen.—p. 322.
Early Tension Relaxation During Muscle Twitch. B. C. Abbott and J. M. Ritchie.—p. 330.
Blood-Pressure Effects of Noradrenaline and Adrenaline with Special Reference to Their Antagonism by Ergotoxine and Other Blocking Agents. K. I. Melville.—p. 346.

Gastric Function After Gastric Instillation of Meal.—To determine the effect of afferent impulses from the mouth, pharynx, and esophagus set up during the swallowing of a meal on subsequent gastric response, experiments were performed in which the

emptying and secretion of the stomach after a swallowed meal were compared with that after a meal introduced into the stomach through a tube. Observations on eight normal subjects indicated that the emptying process was not significantly influenced by the test procedure. It was concluded that the absence of afferent impulses from the mouth, pharynx, and esophagus did not modify gastric digestive activity in response to the pectin meal.

Lancet, London

1:1081-1132 (May 19) 1951

Disturbance of Pupillary Reactions. J. H. Doggart.—p. 1081.
Use of Phonocardiograph in Clinical Medicine. W. Evans.—p. 1083.
Action of Ascorbic Acid on Tuberculin-Sensitivity in Guineapigs and Its Modification by Dietary and Hormonal Factors. D. A. Long, A. A. Miles and W. L. M. Perry.—p. 1085.
Retropubic Prostatectomy: Review of 500 Cases. A. Jacobs.—p. 1088.
*Erythema Multiforme Exudativum Major (Stevens-Johnson Syndrome). D. W. Ashby and T. Lazar.—p. 1091.
Plasmosan: Synthetic Substitute for Plasma. W. R. Thrower and H. Campbell.—p. 1096.
Plasmosan in Prevention and Treatment of Shock. G. P. Arden, G. A. Mandow and F. J. R. Stoneham.—p. 1099.
First Known Fatal Case of Canicola Fever. J. W. Wolff, R. van Dam and J. E. Minkenhof.—p. 1100.
Coagulability of Irradiated Plasma. J. W. Lyttleton and L. Vallet. —p. 1102.
Deflation of Distended Bowel at Operation. A. G. R. Lowdon.—p. 1103.
Spastic Ileus in Presence of Mechanical Obstruction of Small Intestine. J. Grieve.—p. 1104.
Anginose Type of Glandular Fever: Report of Case Requiring Tracheotomy. I. M. Librach.—p. 1105.

Erythema Multiforme Exudativum (Stevens-Johnson Syndrome).—Ashby and Lazar point out that the eruptive fever, which, according to the description of Stevens and Johnson in 1922, is characterized by pleomorphous rash, ulceration of the mouth, purulent conjunctivitis, and severe constitutional symptoms, was not really a new entity, having been described by Hebra in 1860 under the name erythema multiforme exudativum. Other names under which reports of cases indistinguishable from Stevens-Johnson syndrome have been published are "ectodermosis erosiva pluriorificalis" and "dermostomatitis." More recently it has been shown that the skin need not necessarily be affected and that abacterial pneumonia may be a feature. The histories of four patients with this disorder, observed by Ashby and Lazar, are presented, and an additional 77 cases from the literature are analyzed. Sixty-nine of the 81 patients were less than 30 years old. The syndrome is rare after 50. The disease is much more frequent in men than in women (66 men and 15 women in this group). All patients had lesions of the mouth or lips. Conjunctivitis was present in 74 cases. Seven patients had corneal involvement; six of these were left with permanent visual defect (five totally blind). Of the 66 males, 30 had penile lesions and seven had urethral discharge. Skin eruptions were seen in 67 patients. The authors raise the question whether the Stevens-Johnson syndrome is a specific infectious fever with a single causal agent, possibly virus, or a nonspecific syndrome that may be produced by various noxious agents as a form of allergy. Obviously, it is an anachronism to suggest that cases first described in 1922, much less those described in 1860, were caused by sulfonamides. If aureomycin proves to be a specific cure for Stevens-Johnson syndrome, the theory of an infective etiology will be strengthened. The clinical difference between the severe eruptive fever with stomatitis and ophthalmia described by Stevens and Johnson and the mild skin disease of Hebra is so distinct that their relationship is questionable, but if the conditions are variants of the same disease, it is suggested that the suffix "Stevens-Johnson" be attached to the severe form of erythema multiforme and the suffix "Hebra" to the mild form.

Medicina, Buenos Aires

11:1-66 (Feb.) 1951. **Partial Index**

*Functions of Adrenal Cortex in Myxedema. F. A. de la Balze, F. C. Arrillaga and R. E. Mancini.—p. 25.

Functions of Adrenal Cortex in Myxedema.—Tests to ascertain certain functions of the adrenal cortex were performed in 11 patients with myxedema and spontaneous primary thyroid insufficiency. The patients were observed for two to 10 months. Before treatment the metabolism of water and electrolytes was normal, as was proved by the Robinson-Power-Kepler test. Elimination of 17-ketosteroids was greatly diminished in all patients. The number of circulating eosinophils was above normal, as compared to that in 102 normal persons. The subcutaneous injection of 0.3 cc. of a 1:1000 epinephrine hydrochloride solution caused a fall in the circulating eosinophils in seven out of the 11 patients. The fall in these patients was not so great as normal. The intravenous epinephrine test was done on three of these patients, and the results were similar to those of the subcutaneous test. In these three patients, eosinopenia was also induced by an intramuscular injection of (1) 20 mg. of corticotrophin, (2) 100 mg. of cortisone and (3) a subcutaneous injection of 15 mg. of methamphetamine hydrochloride (methedrine®). The results of the three tests agreed with those of the postepinephrine eosinopenia test, showing dysfunction of the glycogenic corticoids. The treatment consisted of administration of a daily dose of 0.10 to 0.25 gm. of powder of desiccated thyroid, until normal thyroid function returned. After treatment the postepinephrine drop in eosinophils was as great as normal in the seven patients in whom it was abnormal before treatment. The urinary 17-ketosteroids returned to normal values in one out of three patients in whom the determination after treatment was made. The authors believe that the functional corticoadrenal disorders that occur in the course of myxedema are due to a hypophysial disturbance that results in a diminished secretion of corticotrophin and of other corticoadrenal hormones.

Nordisk Medicin, Stockholm

45:579-626 (April 18) 1951. **Partial Index**

Air Disinfection in Public Institutions: Continued Tests. E. Gedda. —p. 583.
*Three Types of Pneumonia Treatment (419 Cases). J. B. Nielsen and T. Søttrup.—p. 585.
Chronic Bronchitis and Bronchial Asthma. H. Laursen.—p. 591.
Pulmonary Manifestations in So-Called Catarrhal Fever: Analysis of 647 Cases. T. Christiansen and V. Schmidt.—p. 593.
Antibodies Against Tubercle Bacilli in Benign Lymphgranulomatosis. J. C. Ulstrup.—p. 598.
Is Mantoux Reaction Reliable Sign of Tuberculosis Immunity? S. Frostad.—p. 600.
Subacute Bacterial Endocarditis Treated with Streptomycin. P. Hanssen. —p. 601.

Three Types of Pneumonia Treatment.—In 419 cases, Nielsen and Søttrup found that combined sulfonamide and penicillin treatment of pneumonia showed no advantages over sulfonamide treatment or penicillin treatment alone and that penicillin cannot be regarded as superior to sulfonamides in therapeutic effect. The Central Hospital in Randers, however, has adopted antibiotics (at present dipenicillin) as the standard method of treatment of pneumonia because of increasingly numerous reports of more or less marked side-effects associated with sulfonamides.

Revista Médica de Chile, Santiago

79:197-266 (April) 1951. **Partial Index**

*Diagnosis of Chronic Cor Pulmonale. L. Herve, M. Brodsky, F. Duran and others.—p. 197.

Diagnosis of Chronic Cor Pulmonale.—Herve and collaborators found chronic cor pulmonale in 32 patients out of a group of 116 adults with chronic bronchopulmonary diseases. The disease was secondary to chronic bronchitis in 11 cases, to bronchiectasis in 11 cases, and to silicosis, bronchial asthma, fibrous pulmonary tuberculosis, or emphysema in the remaining 10 cases. It was of the pure form in 10 of these cases and associated with coronary disease, arterial hypertension, or arteriosclerosis in 22. One case of a latent subclinical form was also encountered. The pure form developed in persons of an average age of 44. The duration of the bronchopulmonary disease, up to the appearance of the cardiac symptoms, was between one and two years, and right ventricular hypertrophy developed quickly. In three patients the cardiac disease assumed a malignant form comparable to the malignant form of arterial hypertension; in seven it was subacute. The associated form of the disease developed in patients of an average age of 63. The bronchopulmonary disease was of long duration, right ventricular hypertrophy developed slowly, and the symptoms of chronic cor pulmonale were often masked by those of the coronary or vascular disease. The latent form is

extremely rare. The diagnosis of chronic cor pulmonale was mainly based on (1) the electrocardiographic changes, which showed preponderance of the right ventricle, (2) the results of cardiac catheterization, which showed pulmonary arterial hypertension, and (3) the results of the tests for anoxemia, either compensated or decompensated. In the differential diagnosis the following conditions must be considered: congenital heart diseases causing cyanosis, valvular defects, insufficiency of the right ventricle secondary to arterial diseases, and constrictive pericarditis.

Revue du Rhumatisme, Paris

18:167-238 (April) 1951. **Partial Index**

Study of Behavior of Chronic Progressive Polyarthritis and Ankylopoietic Spondylarthritis Treated with Cortisone. J. Forestier, A. Certonciny, F. Jacqueline and J. Saint-Marc.—p. 167.
Cortisone and Corticotrophin (ACTH) in Rheumatology: Results of Treatment in 58 Cases. S. de Sèze, J. Robin, P. Ordonneau and others.—p. 177.
*Undesirable Thromboembolic Effects of Treatment with Cortisone and Corticotrophin (Pituitary Adrenocorticotropic Hormone). F. Coste, P. Galmiche, B. Piguet and others.—p. 189.

Thromboembolic Episodes in Patients Treated with Cortisone and Corticotrophin.—The occurrence of thromboembolic complications during the course of treatment with cortisone or corticotrophin (ACTH) is reported in five patients between the ages of 21 and 69, one with polyarticular gout, one with rheumatic carditis, one with multiple myeloma, one with chronic progressive polyarthritis, and one with gouty hydrarthrosis of the knee. The thromboembolic episodes observed were a flare-up of coronary artery disease in the first patient, pulmonary infarction in the second patient, and phlebitis in the three other patients. Considerable shortening of the coagulation time was observed in two of the patients with phlebitis, and one of them showed persistent reduction of the coagulation time in spite of treatment with heparin. Similar observations were reported by Cosgriff and co-workers, who stated that the mechanism of this change in blood coagulation is not clear. Coste and coworkers agree with this statement but believe that an increase in the number of blood platelets (335,000 per cubic millimeter), which was observed in several of their cases, may play a part in the disturbance of the blood coagulation. Studies are to be continued in this respect. It seems that the higher the dose of the drug, the greater the risk of thromboembolic complications associated with the treatment of patients with cortisone or corticotrophin, particularly when predisposing factors, such as prolonged bed rest, postoperative shortening of the coagulation time, or cardiac failure are present. Treatment with cortisone or corticotrophin combined with prophylactic treatment with anticoagulants is indicated.

Settimana Medica, Florence

39:149-176 (March 31) 1951

Symptomatology and Diagnosis of Lumbar Sciatic Pain Associated with Herniated Intervertebral Disk. G. Fineschi and L. Giaccai.—p. 149.
*Effects of Chloramine Compounds on Tuberculous Lymphadenitis. M. Del Dotto and G. Scardigli.—p. 158.
*Clinical Contribution to New Treatment of Rheumatic Diseases with Extracts of Total Adrenal Cortex Combined with Vitamin C. D. Bassi and G. Zotti.—p. 162.

Effects of Nitrogen Mustard on Tuberculous Lymphadenitis.—Five patients with tuberculous lymphadenitis of hyperplastic type were given methyl-bis (beta-chloroethyl) amine hydrochloride (nitrogen mustard) injections in doses of 5 mg. every other day, with a total of six to eight injections. The diagnosis was established in four of the five patients by lymph node biopsy. Pronounced enlargement of the axillary and laterocervical lymph nodes was observed in three patients, and considerable swelling of the mediastinal lymph nodes in the two others. Previous treatment with calcium compounds, vitamins, arsenic, iodine, streptomycin, sulfone, thiosemicarbazones, ultraviolet rays, and, in one instance, roentgen irradiation of the mediastinum with two doses of 100 roentgens, had failed. The results of the treatment with nitrogen mustard were as follows: there was a diminution in the size of all the lymph nodes involved, a significant drop in the sedimentation rate, an improvement in general condition which still persists in two patients one year after treatment, and restoration of the temperature to normal. The reaction to the intracutaneous tuberculin test was increased. The white blood corpuscles in the peripheral blood did not undergo pronounced changes, and erythrocytes and hemoglobin remained normal. The authors stress the good results of nitrogen mustard treatment in caseous tuberculous lymphadenitis. The effect is more permanent than that obtained with the same treatment in malignant lymphogranuloma or in leukemic lymphadenosis.

Treatment of Rheumatic Diseases with Extract of Total Adrenal Cortex Combined with Ascorbic Acid.—Fifteen patients, five with subacute articular rheumatism, two with primary chronic polyarthritis, and eight with hypertrophic arthritis, were treated with intravenous injections of extract of total adrenal cortex combined with ascorbic acid. Thirty units of extract of total adrenal cortex and 0.50 gm. of ascorbic acid were administered daily for 10 days. Arterial pressure and blood sugar did not undergo pronounced changes; serum proteins tended to become normal; sedimentation rate, although not restored to normal, dropped, and the hemoglobin content of the blood was improved. Local responses to the treatment were best in patients with subacute articular rheumatism and moderately satisfactory in those with hypertrophic arthritis. Of the two patients with primary chronic polyarthritis, one obtained gratifying results, while treatment failed in the other. Improvement of the general condition was pronounced in all 15 patients. Untoward reactions, consisting of headache, tremor, and rise of temperature, occurred shortly after the first injection, subsided, and did not recur after the following injections. An anti-allergic effect of the treatment is suggested by the fact that the patients were rapidly benefited. The treatment may also have an anti-hyaluronidase action. The high value of the combination of ascorbic acid with extract of total adrenal cortex in the treatment of rheumatic diseases is stressed.

Transactions Royal Soc. Trop. Med. and Hyg., London

44:481-610 (April) 1951. **Partial Index**

Schistosomiasis at Lake Bunyonyi, Kigesi District, Uganda. J. Schwetz.—p. 515.
Transmission of Chagas' Disease to Australian Marsupial Trichosurus Vulpecula. T. C. Backhouse and A. Bolliger.—p. 521.
Efficacy of Certain Trypanocidal Compounds Against Trypanosoma Gambiense Infection in Man. A. J. Duggan and M. P. Hutchinson.—p. 535.
Diabetes Mellitus in Trinidad, British West Indies: Relationship of Symptoms to Frequency of Insulin Injections. J. E. O'N. Gillespie.—p. 545.
Broncho-Pulmonary Moniliasis. S. Zahawi and R. D. Semah.—p. 551.
Malignant Malnutrition in Fiji. P. E. C. Manson-Bahr.—p. 555.
*Sickle-Cell Crisis in Pregnancy: Two Autopsy Reports. G. M. Edington.—p. 559.
Evaluation of Synthetic Anti-Malarial Drugs in Children from Hyperendemic Area in West Africa. L. J. Bruce-Chwatt.—p. 563.
Sterilization of Cysts of Entamoeba Histolytica by Chemical Disinfectants, and Initiation and Maintenance of Pure Cultures in Association with Single Species of Bacteria. V. G. Rao.—p. 593.

Sickle Cell Crisis in Pregnancy.—Edington describes two cases of sudden death in African primigravidas. Necropsy revealed gross anemia of all organs except for the spleen, which was enlarged, slate blue in color, and packed with sickled erythrocytes. Reid described three similar cases of unexpected death in young African women dying shortly before or after delivery. Emphasis was laid on the enlargement of the spleen and the presence of the sickle-cell trait. There would thus appear to be a syndrome of sudden death: a young primigravida approaching term and regarded as normal suddenly becomes severely ill, with sighing respirations and signs of collapse. Delirium and death occur within two days. At autopsy the pallor of the mother's mucosae and organs contrasts with the dark red appearance of the enlarged, firm spleen and also with the organs and blood of the healthy child, whose hemoglobin level is normal. The histopathological findings exclude malaria and toxemia as causes of death but also differ from the usual descriptions of sickle cell disease in Africa, where emphasis is laid on congestion and thrombosis occurring in the organs utilizing most oxygen, namely, the brain and kidney. It is suggested that the cause of death was an acute sickling crisis, which may have been precipitated by (*a*) hemoconcentration occurring in the later months of pregnancy, and (*b*) the additional oxygen requirements of the child, causing a relative anoxemia in the maternal blood.

BOOK REVIEWS

Pharmacognosy: The Study of Natural Drug Substances and Certain Allied Products. By Robertson Pratt, Ph.D., Associate Professor of Pharmacognosy and Plant Physiology, University of California College of Pharmacy, San Francisco, and Heber W. Youngken, Jr., Ph.D., Associate Professor and Chairman for Pharmacognosy, University of Washington College of Pharmacy, Seattle. Cloth. $8.50. Pp. 644, with 67 illustrations. J. B. Lippincott Company, 227-231 S. 6th St., Philadelphia 5; Aldine House, 10-13 Bedford St., London, W.C.2; 2083 Guy St., Montreal, 1951.

Pharmacognosy might be defined as the science that treats of the study of natural drug substances and certain allied products. The need for the inclusion of the latter part of the definition signifies the broad field encompassed by this old, but constantly growing, ramification of the medical sciences. The manner in which the authors have been able to present scientifically the facts of such a large field in one textbook, and at the same time make the acquisition of these facts a pleasant literary pursuit, is very commendable and also unusual in a publication of this nature.

The authors make the interesting observation that the study of galls in plants has supplied information that has been applied in the study of growth in general and of tumorous growths in particular. As a result of these studies, plant physiologists may be on the verge of isolating, and perhaps identifying, definite chemical entities which not only serve to stimulate or regulate the rate of growth of tissues but also exercise control over the pattern of growth of the tissues.

The use of sapogenins, known to occur in reasonable amounts in hundreds of species of plants, is posed as a possible starting source for the synthesis of cortisone. It is also noted that research on these plant products might result in the development of new corticosteroid type drugs.

The study of pharmacognosy is fascinating, in view of the fact that the history of drugs and spices is inextricably interwoven with the economic and social life and customs of nations. The authors have done a splendid job of keeping this fact constantly before the reader. The section on antibiotics is an especially welcome addition to a pharmacognosy test as are the sections concerned with measures for pest control and control of fungi, weeds, and other plants.

Developing Democratic Human Relations Through Health Education, Physical Education and Recreation. First Yearbook, American Association for Health, Physical Education and Recreation. Cloth. $4.25. Pp. 562. The Association, 1201 Sixteenth St., N.W., Washington 6, D. C., 1951.

Selected as "the most crucial task facing all educators and leaders of youth today," this subject is developed in a series to which more than 40 writers and editors have contributed. In the introduction it is emphasized that the volume, designated as a yearbook, is only an initial statement of the problem.

Five sections make up the book. In the first section, the basic point of view is elaborated in four chapters that consider democratic behavior and leadership, and the relationships between health education, physical education, and recreation. Successive sections are devoted to development of programs for children, adolescents, older youth, and adults. In all of these, there is presented a four-chapter discussion of the environment, concepts and attitudes that are considered desirable and which should be developed, methods to be employed, and their evaluation.

Many top-flight workers in the field of education served on the editorial committee that provided over-all supervision of the task, and contributors of special chapters are also specialists in this work. Although an apology is offered in the introduction for differences of opinion that might be observed, there is a surprising unanimity among the writers, at least on the basic necessities.

In addition to extensive bibliographies at the end of each chapter, there is a composite alphabetical bibliography at the end of the book, representing a rich source for those wishing to go more deeply into the subject. The volume should be of interest and assistance to workers in this field.

The reviews here published have been prepared by competent authorities and do not represent the opinions of any official bodies unless specifically stated.

Nutrition and Alcoholism. By Roger J. Williams. Cloth. $2. Pp. 82. University of Oklahoma Press, Norman, 1951.

In this small volume, Dr. Williams presents in nontechnical terms his concept that chronic alcoholism may be a manifestation of a nutritional deficiency. Support for this concept was gained from experiments with laboratory rats. When the animals were offered free choice of water and alcohol, there was considerable individual variation in the amount of alcohol consumed by each rat. However, mild nutritional deficiencies induced by marginal diets led to an increase in alcohol consumption, while correction of these deficiencies resulted in a loss of appetite for alcohol. In subsequent clinical trials, feeding of supplemental vitamins was shown to curb the desire for alcohol in a number of alcoholics. Dr. Williams does not claim to present a universal cure for alcoholism, and readers will doubtless take exception to some of his statements. Nevertheless, he does emphasize a provocative concept, namely, that subtle inborn differences exist between individuals in their fundamental body chemistry and that, as a result, there may be widely differing demands for essential dietary needs. As the author points out, it is not inconceivable that the lack or insufficiency of certain nutritional factors may be involved not only in alcoholism but in susceptibility to infectious diseases or in the etiology of diseases of obscure origin such as arthritis, multiple sclerosis, hypertension, insomnia, cancer, or mental disturbances. Such a concept offers intriguing possibilities in the form of a nutritional approach to the prevention and alleviation of disease.

Rice, Dietary Controls and Blood Pressure with Menus and Recipes. By Frances I. Seymour, M.D. Cloth. $2.95. Pp. 206. Froben Press, Inc., 1776 Broadway, New York 19, 1951.

Dr. Seymour had had an opportunity to observe the effects of the rice diet while undergoing treatment for hypertension. The volume is intended to furnish information to patients about to undergo this rather tedious treatment. Chapters 1 and 2 contain a brief discussion of the necessity for an examination and the various tests employed for diagnosis of essential hypertension. There are chapters devoted to the story of salt and of rice. A valuable feature of the book is the listing of diets for 100 days. The small volume is well written, and the discussion of the various components of the diet are well presented. The book is a worth-while contribution to the important subject of dietetic treatment of hypertension.

Begin Now—to Enjoy Tomorrow . . . By Ray Giles. Cloth. Pp. 57, with illustrations by Will Black. Published as public service by Mutual Benefit Life Insurance Company, P. O. Box 359, Newark 1, N. J., 1951.

Starting with the assumption that the financial aspects of retirement have been given adequate attention, this little volume presents practical suggestions on how to look ahead and set up a program that will be satisfying to both body and mind. In a chapter "What About Money?" the ways in which general expenses are reduced are described. Another chapter presents 10 rules of daily living that probably should be started at age 30 if one is to make the most of old age—or even reach the goal of 65. The volume has a refreshing, practical approach.

Kurzes Lehrbuch der Enzymologie. Von Prof. Dr.Phil. Theodor Bersin. Third edition. Cloth. 19.20 marks. Pp. 274, with 44 illustrations. Akademische Verlagsgesellschaft Geest & Portig K.-G., Sternwartenstrasse 8, (10b) Leipzig C1, 1951.

The latest edition of this well organized textbook for students of the biological sciences, which appears ten years after the second edition, covers the world literature through 1949. A 50-page section on the nature, preparation, dynamics, and biological role of enzymes is followed by 138 pages on individual hydrolytic enzymes and enzymes entering into redox reactions. The last 70 pages are about enzymes in respiration, nutrition, and metabolism of plants and animals, including man. Foreigners who use the work will appreciate the clear, direct style of the writing. There are excellent indexes as well as a full table of contents. The print, illustrations, and binding are good, but most of the paper is poor.

QUERIES AND MINOR NOTES

OTOSCLEROSIS AND PREGNANCY

TO THE EDITOR:—*A woman of 34, gravida II, para I, has been treated for eight to 10 years by an eye, ear, nose, and throat specialist for otosclerosis. He advised her to avoid becoming pregnant. Now that she shows evidence of being pregnant again, he has insisted that the uterus be emptied. Both the patient and her husband would like another child. The history of dizziness started in the last trimester of her previous pregnancy, in 1938. After delivery, her dizziness became accentuated and became associated with nausea and vomiting. These attacks have been alleviated by the treatment that she received from the nose and throat specialist. I would appreciate an immediate answer.*

Milton H. Cohen, M.D., Lewistown, Pa.

ANSWER.—Concerning otosclerosis in pregnancy, Greenhill in his "Principles and Practice of Obstetrics" (10th edition) says:

"Pregnancy sometimes unfavorably affects diseases of the ear, especially otosclerosis. This disease is a chronic nonsuppurative affection of the bony capsule of the ear surrounding the labyrinth which decreases the capacity to hear. The disease is progressive and heredity is an important factor. From a study of the literature Allen is convinced that difficulties in hearing during pregnancy are frequently overlooked or neglected. A family history of ear disorders should be had from every pregnant woman who experiences changes in hearing. Before progressive deafness is considered an indication for the interruption of gestation, a definite diagnosis of otosclerosis must be made. The otosclerotic condition must be studied during both pregnancy and lactation for counseling as to subsequent pregnancies. Allen believes that usually otosclerosis should not contraindicate marriage or a trial pregnancy, nor should it be considered an indication for therapeutic abortion in primigravidas. On the other hand, a multigravida may have considerable right to question the continuation of her pregnancy, if accurate otologic evidence obtained in previous pregnancies has shown definite and sustained loss of hearing. In Barton's series of 133 women with otosclerosis who experienced one or more pregnancies, 72 per cent suffered loss of hearing with the first pregnancy and 50 per cent with subsequent ones. Barton believes an abortion is never justified for these reasons: 1) The effect of pregnancy on otosclerosis is extremely variable and unpredictable; there is no exact relation between the two conditions. The effect of previous pregnancies is not an accurate index of the possible effect of subsequent ones. 2) The favorable effect of abortion on the otosclerosis is also inconstant. The progression of the deafness with pregnancy may or may not be arrested by abortion. 3) The disease does not endanger the life of the mother as do the accepted indications for therapeutic abortion; for example, tuberculosis, heart disease and toxemia. 4) This type of deafness is not the severe handicap that it once was, owing to the advent of modern hearing aids and the promise of surgical treatment.

"Since the fenestration operation is usually successful there is seldom need to perform a therapeutic abortion because of this condition.

"Sterilization or other eugenic measures are futile in the control of otosclerosis because the hereditary nature of the disease is not known accurately, because it is impossible to prophesy deafness of progeny and because the unfavorable effect of pregnancy on otosclerosis is not constant. In Barton's series, the patients had a 50 per cent chance of having successive pregnancies without further loss of hearing."

The answers here published have been prepared by competent authorities. They do not, however, represent the opinions of any official bodies unless specifically stated in the reply. Anonymous communications and queries on postal cards cannot be answered. Every letter must contain the writer's name and address, but these will be omitted on request.

THROMBOSIS AND EMBOLISM

TO THE EDITOR:—*What is the greatest interval reported between thrombophlebitis and embolism?*

Erwin R. Kaback, M.D., Otisville, N. Y.

ANSWER.—The question cannot be answered categorically by quoting figures from the literature for the following reasons. First, roughly 50 per cent of pulmonary emboli occur before the clinical manifestations of venous thrombosis. The peripheral thrombus is silent and may grow by apposition after the pulmonary embolus. Second, cases like that of Strauss (cited by de Takats in Brahdy and Kahn's "Trauma and Disease" ed. 2, Philadelphia, Lea & Febiger, 1941, p. 115) of a man who died of pulmonary embolism three months after fracturing his patella, are clouded by the fact that the original thrombosis may recur and that the embolus may be due to a recent growth of an old thrombus or even to a silent unrecognized thrombus from the pelvis, from the opposite extremity or from the heart.

With these reservations one might state that an embolus may occur even years after an injury or after a thrombosis and still be causally related to it, provided, however, that in the interval one or more attacks of recurring thrombosis were recognizable. The fresh thrombus retracts from the wall and is then organized in two to three weeks. It is possible that the rate and extent of clot retraction have to do with embolization. (Quick and Hussey, *Science* **112**:558, 1950.)

ALOPECIA TOTALIS

TO THE EDITOR:—*A 26 year old, single man has no hair on the body. He has been having this trouble about 10 years. He does not have any symptom of leprosy. Kahn and Wassermann reactions were negative. While he denies a history of syphilis, once, he said, he received more than 10 injections of neoarsphenamine and injections of male hormone. He has also used many kinds of stimulative ointments to the scalp and ultraviolet, which did not appear to be helpful. Please give me an accurate diagnosis and effective treatment.*

C. L. Chu, M.D., Sanator, S. D.

ANSWER.—It would appear that a person who has no hair on his body has what is known as alopecia totalis, the cause for which is not known. Repeated search for glandular deficiencies of one type or another and efforts at hormonal therapy have in the main been unsuccessful. In women with alopecia totalis the hair frequently grows back during pregnancy but again disappears completely when the child is weaned. In view of the fact that the cause of alopecia totalis is not known, there is no specific treatment for it, but it does seem advisable to encourage persons who have total alopecia to accept it, not to be ashamed of it; women especially should be encouraged to wear wigs.

PARADOXICAL EMBOLISM

TO THE EDITOR:—*An injured person claims that an embolus that occurred in the femoral artery was due to a blood clot that followed a minor injury to a vein in the left arm. The heart specialist claims that the embolus entered the right auricle, passed through the foramen ovale and then part of the clot entered the coronary and the other part lodged in the right femoral artery, causing an embolism which necessitated amputation of the right leg. Can you tell me whether any such case has been recorded?*

Robert M. Burns, M.D., St. Paul.

ANSWER.—The auricular system may stay patent after birth as a patent foramen ovale. This defect varies from a small slit, covered by a valvelike membrane, to a large oval opening. A systolic murmur is usually present with an accentuated second

sound at the pulmonary area; occasionally the soft diastolic murmur of pulmonary insufficiency may be heard. Roentgenologically there is an enlargement of the right auricle, right ventricle and the pulmonary artery. The hilar pulsations may be accentuated. The electrocardiogram shows right axis deviation, and auricular fibrillation often occurs. All these findings, of course, presuppose a large defect.

Ingham (*Am. J. M. Sc.* **196**:201, 1938) reviewed the literature on paradoxical embolism and reported six cases, in each of which an autopsy demonstrated an embolus in transit through a patent foramen ovale.

Obviously, if the diagnosis of paradoxical embolus is to be maintained, one must search for in vivo evidence of patent foramen ovale, which may have to include cardiac catheterization; other frequent causes of embolism due to myocardial infarction or auricular fibrillation must be excluded. Paradoxical embolism constitutes roughly 1 per cent of cases in which sudden arterial occlusion occurs.

NEUROLOGIC COMPLICATIONS OF INFECTIOUS MONONUCLEOSIS

To the Editor:—*A 23 year old man had urinary retention. He had been sick for 10 days, complaining of sore throat, chills, fever and some stiffness of the neck, mostly on the right side. Examination revealed postcervical adenopathy on the right side, pharyngitis and tonsillitis. The temperature was 101 F. Laboratory data, including spinal fluid findings, substantiated the diagnosis of infectious mononucleosis with central nervous system involvement. Abdominal and cremasteric reflexes were absent; other reflexes were normal. Cystometric studies revealed an atonic type of neuromuscular vesical dysfunction, also seen on intravenous urography. What are the neurologic complications of infectious mononucleosis, the pathology and prognosis?*

Victor J. Mulaire, M.D., Stamford, Conn.

Answer.—Answers to this query are given in a recent paper on "Nervous System Involvement in Infectious Mononucleosis," by Bernstein and Wolff (*Ann. Int. Med.* **33**:1120, 1950). Apparently the nervous system is not often affected. Reports of 34 instances were collected among which were examples of serous meningitis, encephalitis, meningoencephalitis and acute polyneuronitis. In one instance the patient had difficulty in voiding as noted in the query. Since the disease rarely is fatal, few necropsy reports are available. Studies of the brain in three cases show the nonspecific changes of a viral-like infection (*Am. J. Path.* **23**:463, 1947; *Blood* **2**:217, 1947). The prognosis is good; complete recovery occurred in 85 per cent of cases.

TREATMENT OF BURSITIS

To the Editor:—*What is the percentage of cases of acute calcific bursitis cured by the following measures: (1) diathermy, (2) x-ray therapy, and (3) procaine hydrochloride injections into the bursa, with and without irrigation of the bursal sac? What are the results with these measures in chronic calcific bursitis?*

Benjamin H. Archer, M.D., New York.

Answer.—There are no acceptable statistics which would establish the efficiency of these various measures on a percentage basis in either acute or chronic calcific bursitis. Diathermy should not be used in acute bursitis, with or without the presence of calcium. Diathermy increases the hyperemia, and this is likely to cause an increase in pain. In acute bursitis with some calcium in the fluid within the bursa, elimination of tension due to the pressure of the fluid contents of the bursa affords the quickest possible relief. This can be obtained by injection of procaine and repeatedly needling the bursa to make small openings, so that the fluid can leak out into surrounding tissue, where it may be picked up by the circulation. The percentage of good results from this procedure would be about the same as results when two needles are used and saline or procaine solutions are washed through the bursa. A considerable number of orthopedic surgeons now favor the use of x-rays after procaine injections and fenestration of the bursa, with or without irrigation of the bursal sac. This combination has been successful in a high percentage of cases in which the condition was definitely acute.

In the older and truly chronic calcified bursa, conservative measures are less likely to be successful. Diathermy in this chronic phase may be soothing and may aid in the absorption of the calcified material. It should be noted, however, that old, dry, calcified deposits are rarely found in the bursae about the shoulders. These calcified deposits are usually within the tendon of the supraspinatus muscle. Most acute bursae associated with calcification are secondary to an injury of the fibers of the supraspinatus tendon, and it is in the torn or fragmented fibers of this tendon that calcification most often takes place. Since the bursa lies directly over the tendon, it is possible for some of the calcium to escape into the bursa through a small tear or rent in the bursal wall. In the old, chronic, calcified supraspinatus tendons, with or without persistent bursitis, the calcium is usually dry or of the consistency of cheese. In such instances it cannot be removed by irrigation, multiple needling, diathermy, or x-ray therapy. An operation for exposing the tendon and thoroughly excising the calcified areas and, when indicated, repair of the tendon is usually followed by relief of symptoms and complete cure.

FIBROUS CAVERNOSITIS

To the Editor:—*I have a 40 year old patient who has a small fibrous tissue area in the midportion of the penis, obliterating about 2 cm. of one section of the corpus cavernosum. He complains of pain at the site of the lesion and deformity of the organ on erection. There is no roentgen evidence of calcification. What is the most likely cause, other than injury, and what is the treatment?*

Hugh L. Houston, M.D., Murray, Ky.

Answer.—In all probability the penile lesion described is caused by fibrous cavernositis (Peyronie's disease). This lesion is generally regarded as resulting from a chronic inflammatory process in the sheaths or intracavernous septums of the corpora cavernosa. The fibrous process usually involves Buck's fascia and the adjacent tissues. One or more fibrous plaques, which are readily palpable as firm nodules of variable extent, may result. The lesion often causes penile deformity as described and in some cases is the cause of pain. The fibrous plaques can usually be distinguished from gumma or malignant lesions by the intense hardness of the area and the absence of other clinical data. As a rule the process gradually becomes circumscribed and the local symptoms subside. Good results have been obtained in some cases by surface applications of radium. A mixture of tocopherol acetates (tofaxin®) has been administered, 50 mg. three times daily, with variable results. This drug consists largely of synthetic vitamin E, the value of which is thus far unestablished. Although surgical excision has been employed, the results obtained have often been unsatisfactory.

HYPERGLYCEMIA AND FURUNCULOSIS

To the Editor:—*What is the significance of a fasting blood sugar of 140 mg. per 100 cc. in a 30 year old, obese male—weight 260 pounds (118 Kg.)—with furunculosis. He has no glycosuria normally. The dextrose tolerance curve is of the diabetic type, reaching 180 mg. per 100 cc. at 30 minutes, at which time there is glycosuria, 240 mg. at 1 hour and 180 mg. at 2 hours. Is insulin indicated?*

Wendell W. White, M.D., Faith, S. D.

Answer.—Hyperglycemia, both fasting and during a glucose tolerance test, accompanied by glycosuria implies diabetes. In this instance the furunculosis should be eliminated before a permanent diagnosis is made. If the patient cannot remain sugar free and have a normal blood sugar level on a diet of about 200 Gm. of carbohydrate, 1 Gm. of protein per kilogram and 80 Gm. or less of fat while the weight is being reduced to within at least 30 pounds (13 Kg.) of standard for his height, then he should take insulin.

JOURNALS ABSTRACTED IN THE CURRENT MEDICAL LITERATURE DEPARTMENT, MAY-AUGUST 1951

Titles have been listed or abstracts made of important articles in the following journals in the Current Literature Department of THE JOURNAL during the past four months. Any of the journals, except those starred, will be lent by THE JOURNAL to subscribers in Continental United States and Canada and to members of the American Medical Association for a period not exceeding five days. Three journals may be borrowed at a time. No journals are available prior to 1940. Requests for periodicals should be addressed to the Library of the American Medical Association and should be accompanied by stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Thus most of these journals are accessible to the general practitioner.

*A. M. A. American Journal of Diseases of Children. Chicago.
*A. M. A. Archives of Dermatology and Syphilology. Chicago.
*A. M. A. Archives of Industrial Hygiene and Occupational Medicine. Chicago.
*A. M. A. Archives of Internal Medicine. Chicago.
*A. M. A. Archives of Neurology and Psychiatry. Chicago.
*A. M. A. Archives of Ophthalmology. Chicago.
*A. M. A. Archives of Otolaryngology. Chicago.
*A. M. A. Archives of Pathology. Chicago.
*A. M. A. Archives of Surgery. Chicago.
Acta cardiologica. Brussels.
Acta clinica belgica. Brussels.
Acta endocrinologica. Copenhagen.
Acta medica orientalia. Jerusalem.
Acta medica Scandinavica. Stockholm.
Acta radiologica. Stockholm.
Acta vitaminologica. Milan.
American Heart Journal. St. Louis.
American Journal of Clinical Pathology. Baltimore.
American Journal of Digestive Diseases. Fort Wayne, Ind.
American Journal of Hygiene. Baltimore.
American Journal of the Medical Sciences. Philadelphia.
American Journal of Medicine. New York.
American Journal of Obstetrics and Gynecology. St. Louis.
American Journal of Ophthalmology. Chicago.
American Journal of Pathology. Ann Arbor, Mich.
American Journal of Physiology. Baltimore.
American Journal of Psychiatry. New York.
American Journal of Psychotherapy. New York.
American Journal of Public Health. New York.
American Journal of Roentgenol. and Radium Therapy. Springfield, Ill.
American Journal of Surgery. New York.
American Journal of Syphilis, Gonor. and Venereal Diseases. St. Louis.
American Journal of Tropical Medicine. Baltimore.
American Practitioner and Digest of Treatment. Philadelphia.
American Review of Tuberculosis. New York.
American Surgeon. Atlanta, Ga.
Anesthesiology. New York.
Angiology. Baltimore.
Annales chirurgiae et gynaecologiae Fenniae. Helsinki.
Annales paediatrici. Basel.
Annals of Allergy. Minneapolis.
Annals of Internal Medicine. Lancaster, Pa.
Annals of Otology, Rhinology and Laryngology. St. Louis.
Annals of the Rheumatic Diseases. London.
Annals of Surgery. Philadelphia.
Annals of Tropical Medicine. Liverpool.
Annals of Western Medicine and Surgery. Los Angeles.
Archives of Disease in Childhood. London.
Archives des maladies du coeur. Paris.
Archives of Physical Medicine. Chicago.
Archivio "de Vecchi" per l'anatomia patologica e la medicina clinica. Florence.
Archivio di Chirurgia Ortopedica e di Medicina. Milan.
Archivos de pediatría del Uruguay. Montevideo.
Archivos uruguayos de medicina, cirugía y especialidades. Montevideo.
Archivum chirurgicum neerlandicum. Arnhem.
Arizona Medicine. Phoenix.
Arquivos brasileiros de cardiologia. São Paulo.
Arquivos de clínica. Rio de Janeiro.
Australian and New Zealand Journal of Surgery. Sydney.
Beiträge zur Klinik der Tuberkulose. Berlin-Heidelberg.
Beiträge zur klinischen Chirurgie. Munich-Berlin.
Biochemical Journal. London.
Blood. New York.
Boletín de la Asociación médica de Puerto Rico. Santurce.
Brain. London.
Brasil-medico. Rio de Janeiro.
British Heart Journal. London.
British Journal of Cancer. London.
British Journal of Dermatology. London.
British Journal of Experimental Pathology. London.
British Journal of Industrial Medicine. London.
British Journal of Ophthalmology. London.
British Journal of Plastic Surgery. Edinburgh.
British Journal of Radiology. London.
British Journal of Social Medicine. London.
British Journal of Surgery. Bristol.
British Journal of Tuberculosis. London.
British Journal of Urology. London.
British Journal of Venereal Diseases. London.
British Medical Journal. London.
Bulletin of the Johns Hopkins Hospital. Baltimore.
Bulletin of the New York Academy of Medicine. New York.
California Medicine. San Francisco.
Canadian Medical Association Journal. Montreal.
Cancer. New York.
Cancer Research. Chicago.
Cardiologia. Basel.
Chinese Medical Journal. Shanghai.
Chirurg. Berlin-Heidelberg.
Cincinnati Journal of Medicine. Cincinnati.
Circulation. New York.
Clinical Science. London.
Connecticut State Medical Journal. Hartford.
Delaware State Medical Journal. Wilmington.
Deutsche medizinische Wochenschrift. Stuttgart.
Diseases of Chest. Chicago.
Edinburgh Medical Journal. Edinburgh.
Electroencephalography and Clinical Neurophysiology. Boston.
Endocrinology. Springfield, Ill.
Experimental Medicine and Surgery. Brooklyn.
Gastroenterologia. Basel.
Gastroenterology. Baltimore.
Geburtshilfe und Frauenheilkunde. Stuttgart.
Geriatrics. Minneapolis.
Giornale di clinica medica. Parma.
Glasgow Medical Journal. Glasgow.
GP (Journal of American Academy of General Practice). Kansas City, Mo.
Gynaecologia. Basel.
Hawaii Medical Journal. Honolulu.
Helvetica chirurgica acta. Basel.
Helvetica medica acta. Basel.
Hoja tisiológica. Montevideo.
Hospital. Rio de Janeiro.
Illinois Medical Journal. Chicago.
Indian Medical Gazette. Calcutta.
Industrial Medicine and Surgery. Chicago.
International Journal of Leprosy. New Orleans.
Journal of Allergy. St. Louis.
Journal of American Medical Women's Association. Nashville, Tenn.
Journal of Applied Physiology. Washington, D. C.
Journal of Arkansas Medical Society. Fort Smith.
Journal of Aviation Medicine. St. Paul.
Journal of Bacteriology. Baltimore.
Journal of Bone and Joint Surgery. Boston.
Journal de chirurgie. Paris.
Journal of Clinical Endocrinology. Springfield, Ill.
Journal of Clinical Investigation. Cincinnati.
Journal of Clinical Pathology. London.
Journal of Experimental Medicine. New York.
Journal of the Florida Medical Association. Jacksonville.
Journal of Gerontology. St. Louis.
Journal of Hygiene. London.
Journal of Immunology. Baltimore.
Journal of the Indiana State Medical Association. Indianapolis.
Journal of Infectious Diseases. Chicago.
Journal of International College of Surgeons. Chicago.
Journal of Investigative Dermatology. Baltimore.
Journal of the Iowa State Medical Society. Des Moines.
Journal of the Kansas Medical Society. Topeka.
Journal of Laboratory and Clinical Medicine. St. Louis.
Journal of Laryngology and Otology. London.
Journal of the Maine Medical Association. Portland.
Journal of the Medical Association of the State of Alabama. Montgomery.
Journal of the Medical Association of Georgia. Atlanta.
Journal of the Medical Society of New Jersey. Trenton.
Journal de médicine de Lyon. Lyon.
Journal of Mental Science. London.
Journal of the Michigan State Medical Society. Lansing.
Journal of the Missouri State Medical Association. St. Louis.
Journal of National Cancer Institute. Washington, D. C.

* Cannot be lent.

Journal of National Malaria Society. Columbia, S. C.
Journal of Nervous and Mental Disease. New York.
Journal of Neurology, Neurosurgery and Psychiatry. London.
Journal of Neuropathology and Clinical Neurology. Chicago.
Journal of Neuropathology and Experimental Neurology. Baltimore.
Journal of Neurophysiology. Springfield, Ill.
Journal of Neurosurgery. Springfield, Ill.
Journal of Nutrition. Philadelphia
Journal of Obstetrics and Gynaecology of the British Empire. Manchester.
Journal of the Oklahoma State Medical Association. Oklahoma City.
Journal of Pathology and Bacteriology. Edinburgh.
Journal of Pediatrics. St. Louis.
Journal of Pharmacology and Experimental Therapeutics. Baltimore.
Journal of the Philippine Medical Association. Manila.
Journal of Physiology. Cambridge.
Journal of the South Carolina Medical Association. Florence.
Journal of the Tennessee State Medical Association. Nashville.
Journal of Thoracic Surgery. St. Louis.
Journal of Tropical Medicine and Hygiene. London.
Journal of Urology. Baltimore.
Journal of Venereal Disease Information. Washington, D. C.
Journal-Lancet. Minneapolis.
Kentucky Medical Journal. Bowling Green.
Klinische Monatsblätter für Augenheilkunde und für augenärztliche Fortbildung. Stuttgart.
Klinische Wochenschrift. Berlin-Heidelberg.
Lancet. London.
Laryngoscope. St. Louis.
Lyon chirurgical. Paris.
Medical Annals of the District of Columbia. Washington.
Medical Journal of Australia. Sydney.
Medicina. Buenos Aires.
Medicine. Baltimore.
Medizinische Klinik. Munich.
Medizinische Welt. Stuttgart.
Mental Hygiene. Albany, N. Y.
Military Surgeon. Washington, D. C.
Minerva medica. Turin.
Minnesota Medicine. St. Paul.
Münchener medizinische Wochenschrift. Munich.
Nebraska State Medical Journal. Lincoln.
Nederlandsch tijdschrift voor geneeskunde. Amsterdam.
Neurology. Minneapolis.
New England Journal of Medicine. Boston.
New Orleans Medical and Surgical Journal. New Orleans.
New York State Journal of Medicine. New York.
Nordisk medicin. Stockholm.
North Carolina Medical Journal. Winston-Salem.
Northwest Medicine. Seattle.
Ohio State Medical Journal. Columbus.
Paris médical. Paris.
Pediatrics. Springfield, Ill.
Pennsylvania Medical Journal. Harrisburg.
Philippine Journal of Surgery. Manila.
Physiological Review. Baltimore.
Plastic & Reconstructive Surgery. Baltimore.
Policlinico (sezione chirurgica). Rome.
Postgraduate Medicine. Minneapolis.
Practitioner. London.
Praxis. Bern.
Prensa médica argentina. Buenos Aires.
Presse médicale. Paris.
Proceedings of Royal Society of Medicine. London.
Proceedings of the Society for Experimental Biology and Medicine. Utica, N. Y.
Proceedings of Staff Meeting of Mayo Clinic. Rochester, Minn.
Progrès médical. Paris.
Psychiatric Quarterly. Utica, N. Y.
Psychiatry. Washington, D. C.
Psychoanalytic Quarterly. Albany, N. Y.
Psychoanalytic Review. Albany, N. Y.
Psychosomatic Medicine. New York.
Public Health Reports. Washington, D. C.
Puerto Rico Journal of Public Health and Tropical Medicine. San Juan.
Quarterly Bulletin of Sea View Hospital. Staten Island, N. Y.
Quarterly Journal of Medicine. Oxford.
Quarterly Journal of Studies on Alcohol. New Haven, Conn.
Radiologia medica. Turin.
Radiology. Syracuse, N. Y.
Rassegna medica sarda. Cagliari.
Review of Gastroenterology. New York.
Revista argentina de reumatología. Buenos Aires.
Revista brasileira de tuberculose. Rio de Janeiro.
Revista chilena de pediatría. Santiago.
Revista clínica española. Madrid.
Revista española de obstetricia y ginecología. Valencia.
Revista española de pediatría. Zaragoza.
Revista de ginecologia e d'obstetricia. Rio de Janeiro.
Revista médica de Chile. Santiago.
Revista médica dominicana. Ciudad Trujillo.
Revista paulista de medicina. São Paulo.
Revue du rhumatisme et des maladies osteo-articulaires. Paris.
Rhode Island Medical Journal. Providence.
Rocky Mountain Medical Journal. Denver.
Schweizerische medizinische Wochenschrift. Basel.
Semaine des hôpitaux de Paris. Paris.
Settimana medica. Florence.
South African Medical Journal. Cape Town.
South Dakota Journal of Medicine and Pharmacy. Sioux Falls.
Southern Medical Journal. Birmingham, Ala.
Southwestern Medicine. El Paso, Texas.
Strahlentherapie. Munich.
Strasbourg médical. Strasbourg.
Surgery. St. Louis.
Surgery, Gynecology and Obstetrics. Chicago.
Texas State Journal of Medicine. Fort Worth.
Thorax. London.
Transactions of the Royal Society of Tropical Medicine and Hygiene. London.
Tubercle. London.
Ugeskrift for laeger. Copenhagen.
Union médicale du Canada. Montreal.
United States Armed Forces Medical Journal. Washington, D. C.
Urologic and Cutaneous Review. West Palm Beach, Fla.
Virginia Medical Monthly. Richmond.
Western Journal of Surgery, Obstetrics and Gynecology. Portland, Ore.
West Virginia Medical Journal. Charleston.
Wiener klinische Wochenschrift. Vienna.
Wisconsin Medical Journal. Madison.
Yale Journal of Biology and Medicine. New Haven.
Zeitschrift für Kinderheilkunde. Heidelberg.
Zeitschrift für klinische Medizin. Heidelberg.
Zentralblatt für Chirurgie. Leipzig.
Zentralblatt für Gynäkologie. Leipzig.

SUBJECT INDEX

This is an index to all the reading matter in THE JOURNAL. In the Current Medical Literature Department only the articles which have been abstracted are indexed.

The letters used to explain in which department the matter indexed appears are as follows: "BI," Bureau of Investigation; "E," Editorial; "C," Correspondence; "ab," abstracts; the asterisk (*) indicates an original article in THE JOURNAL.

This is a subject index and one should, therefore, look for the subject word, with the following exceptions: "Book Notices," "Deaths," "Medicolegal Abstracts" and "Societies" are indexed under these titles at the end of the letters "B," "D," "M," and "S." Matter pertaining to the Association is indexed under "American Medical Association." The name of the author, in brackets, follows the subject entry.

For the author index see page 1671.

A

ACTH
antidiuretic activity in, reduced [Reinhardt] 1447—ab
cortisone and, Denmark, 1149
cortisone and adrenal cortex, [Proctor] 400—ab
cortisone and infertility, 765
effect on erythrocyte sedimentation rate, 201—E; [Fischel] 1340—C
effect (negative) on experimental poliomyelitis and encephalomyelitis, [Milzer] 284—ab
effect on immunity, [Bjørneboe] 1267—ab
effect on red blood cell volume [Garcia] 1447—ab
International Symposium on Chemistry of, 1431
secretion rate, 17-ketosteroids in urine no value in assessing, 1489—ab
toxicity: adrenal atrophy danger, 1365
toxicity: cutaneous effects, [Brunner] 1346—ab
toxicity: dramatic repiratory symptoms from withdrawal, [Keeton & others] *615
toxicity: hemorrhage tendencies, 1273
toxicity: status epilepticus, [Dorfman & others] *25
toxicity: thromboembolic episodes, [Coste] 1617—ab
Treatment: See also Arthritis, Rheumatoid; Asthma; Burns; Colitis, ulcerative; Gold; Gout; Intestines, inflammation; Kidneys, disease; Loeffler's Syndrome; Neurodermatitis; Sjögren's Syndrome; Skin disease
treatment compared with cortisone, [Zanartu] 1452—ab
treatment, intravenous use, [Mandel & others] *546
treatment, late results in periarteritis nodosa, [Levin] 1260—ab
treatment of beryllium granulomatosis and silicosis, [Kennedy] 498—ab
treatment of chorea minor of no value, 1271
treatment of peritoneal, pleural, and pericardial effusions, [Moehlig] 601—ab
treatment plus cortisone in acute crisis of lupus erythematosus, [Haserick & others] *643
treatment plus cortisone in panhypopituitarism with arthritis, [Schrock] 755—ab
treatment plus cortisone in rheumatic fever, [Keith] 968—ab
treatment vs. pituitary gland implantation for rheumatoid arthritis, Sweden, 55
ultrafiltrable preparation, effective in small doses, [Moruzzi] 396—C
ALC
infectious hepatitis and split-eye, 1544
ABDOMEN: See also Ascites; Gastrointestinal Tract; Pelvis; Peritoneum
Distention: See Flatulence
pain, periodic attacks, (reply) [Reimann] 608
Surgery: See also Cesarean Section; Gallbladder
surgery, neomycin in, [Poth] 757—ab
Viscera: See Viscera
ABDOMINAL BINDER
"belly bands" for infants, 298
ABNORMALITIES: See also Arachnodactyly; Crippled; Dwarfism; under specific organ and region as Heart; Lungs; Tarsus; Urinary System
congenital malformation from rubeola in mother, 1339
congenital, not due to rabies vaccine during 7th month of gestation, 1458
fetal malformation, 1192—ab
ABORTION
4 types of endocrine patterns in term pregnancies after, [Jones & Delfs] *1212
habitual: treatment indicated, 1457
legal induction, Sweden, 748
spontaneous, treatment: when is curettage indicated? 417
therapeutic, in pregnancy and familial erythroblastosis, [Dahr] 1355—ab
therapeutic, not indicated in otosclerosis, 1619
ABSCESS: See also Ulcers; under organs affected as Liver
tuberculous, after penicillin therapy, [Arce] 1170—ab
ABSORPTION: See under organ, region or substance concerned as Pleura
ACADEMY: See also under names of specific academies as American Academy: New York Academy; list of Societies at end of letter S of Medicine of Toledo and Lucas County, Ohio, Library (picture) 1429
ACCIDENTS: See also Disability; Disasters; Trauma; Wounds
Automobile: See Automobiles
cases, A.M.A. resolution on standardized form for reporting, 933
fatal, alcohol and violent death, [Spain & others] *334
Industrial: See Industrial Accidents
proneness in multiple sclerosis, [Bennett] 1161—ab
ACE Elastic Hosiery, 927
ACETYLCHOLINE
theory in neuromuscular transmission, 1096—ab
ACHLORHYDRIA: See Stomach acidity
ACHYLIA gastrica: See Stomach
ACID: See also Antacids
acetylsalicylic (aspirin), allergy to [Walton] 968—ab
acetylsalicylic (aspirin), poisoning in infants and young children from medication, [Iversen] 1541—ab
acetylsalicylic (aspirin), poisoning, treatment using artificial kidney, [Doolan & others] *105
acetylsalicylic, salicylate blood level after ingestion, 297
Amino Acids: See Amino Acids
p-aminobenzoic, effect in serum sickness, [Ricci] 67—ab
p-aminosalicylic and dihydrostreptomycin for genital tuberculosis, 1177
p-aminosalicylic and streptomycin combined, [Tempel] 962—ab
p-aminosalicylic and streptomycin in surgical treatment of pulmonary tuberculosis, [Birath] 1168—ab
p-aminosalicylic, calcium salt of PAS in pulmonary tuberculosis, [Press] 504—ab
p-aminosalicylic in tuberculosis of children, [Lesné] 409—ab
p-aminosalicylic, intravenous use, [Amberg] 973—ab
p-aminosalicylic plus streptomycin in pulmonary tuberculosis, [Dufourt] 1167—ab
p-aminosalicylic, plus streptomycin or dihydrostreptomycin in tuberculous arthritis, 1366
p-aminosalicylic, resistant tubercle bacilli, [Miller] 60—ab
p-aminosalicylic, role in emergence of streptomycin resistant tubercle bacilli, [Lewis] 1531—ab
ascorbic, and corticosterone in arthropathies, [Tassinari] 1171—ab
ascorbic, and methylene blue for methemoglobinemia, [Breakey] 1357—ab
ascorbic, and rutin for rheumatic fever, [Schnir] 972—ab
ascorbic, plus extract of total adrenal cortex, for rheumatic diseases, [Bassi] 1617—ab
boric, poor deodorant, 1090
carbonic, deficit, alkalosis due to hyperventilation, [Sattler & others] *1125
Cevitamic: See Acid, ascorbic
cinchoninic, derivative, trial of, [Rennie] 683—ab
citric, biosynthesis, 1030—E
débridement of burns with phosphoric-acid-gel, [Schweitzer] 1536—ab
folic, and pernicious anemia, 299
folic, antagonists in leukemia, [Hendricks] 677—ab
folic, in infant nutrition, (council report) *1028
folic, surgical treatment of lumbar disk lesions, 732—E
ACID—Continued
glutamic, utilization of nonspecific nitrogen, 1137—E
homogentisic, alkaptonuria mistaken for diabetes mellitus, [Mauser] *815
Hydrochloric: See Stomach acidity
p-hydroxybenzoic, new bacterial vitamin, 1327—E
Mesoxalic, ureide of: See Alloxan
nicotinic, nicotinamide-U.S.P., N.N.R., (Physicians' Drug & Supply) 34
tannic, with chlorothen, treatment of Rhus dermatitis, [Hoagland & others] *612
undecylenic, orally in psoriasis, [Rattner & Rodin] *1113
ACID BASE BALANCE: See Acidosis
ACIDITY
Gastric: See Stomach acidity
ACIDOSIS
blood, in acute poliomyelitis with respiratory insufficiency, [Plum & Wolff] *442
ACNE: See also Furunculosis
treatment, 300
vulgaris, roentgenotherapy vs. estrogens, sulfonamides, progesterone, and antibiotics, [Andrews & others] *1107
ACRODYNIA: See Erythredema
ACRYLIC SUBSTANCE
Judet's operation: femur replaced by prosthesis in, Belgium, 394
ACTINOMYCES, Antibiotic Prepared from: See Streptomycin
ACTINOMYCOSIS
propagation of fungi in yolk sac, [Brueck] 681—ab
ACTIVITY: See also Exercise
physical, at onset of myocardial infarction, [Gertler & others] *1293
physical, effect on prognosis of poliomyelitis, [Albrecht & Locke] *769
ADAPTATION
syndrome, [Selye] 290—ab
ADDICTION: See Alcoholism; Narcotics
ADDISON'S ANEMIA: See Anemia, Pernicious
ADDISON'S DISEASE
treatment, licorice, [Groen] 1075—ab
ADDRESSES: See Lectures
ADENOIDECTOMY
tonsillectomy and poliomyelitis, [Miller] 59—ab
ADENOMA: See also Cystadenoma
bronchial, [Doty] 1261—ab
Nontoxic, of Thyroid: See Goiter
polyps of colon and rectum [Castro] 288-ab; [Bacon] 1537—ab
Toxic of Thyroid: See Goiter, Toxic
ADENOMYOSIS: See Endometriosis
ADIE SYNDROME
[Wartenberg] 1152—C
ADOLESCENCE
Council of International Youth Center, Paris, 1338; 493
precocious puberty, 1458
ADRENALIN: See Epinephrine
ADRENALS: See also Addison's Disease
Adrenocorticotropic Hormone: See ACTH
atrophy induced by ACTH or cortisone, danger of, 1365
Cortex Compound E: See Cortisone
cortex, chronic hypercorticalism in adults, [Gilbert-Dreyfus] 1452—ab
cortex, cortisone and ACTH, [Proctor] 400—ab
cortex during meningococcic infection, [Ruml] 1446—ab
cortex extract plus ascorbic acid for rheumatic diseases, [Bassi] 1617—ab
cortex extract, postoperative use, [Kelso] 1077—ab
cortex, functions in myxedema, [de la Balze] 1616—ab
Cortex Hormone (Crystalline): See Desoxycorticosterone
cortex hormone, 17-ketosteroids in urine no value in assessing rate of secretion, 1489—ab

ADRENALS—Continued
hemorrhage, Waterhouse-Friderichsen syndrome, cortisone for, [Nelson & Goldstein] *1193; [Newman] *1229
Hormone (Sympathetic): See Epinephrine
hyperplasia, cortisone for, [Wilkins] 500—ab
in collagen disease, [Selye] 970—ab
insufficiency and changes in joints, [Schaal] 1450—ab
peptic ulcer and, [Biró] 969—ab
role of in pink disease, [Williams] 1267—ab
tumors, diagnosis of pheochromocytoma, review, [Rilshede] 1541—ab
tumors, false positive benzodioxan test, [Place] *1227
tumors, piperoxan and regitine tests in pheochromocytoma, [Emlet & others] *1383
tumors, piperoxan test in pheochromocytoma, [Faber] 1541—ab
ADRENOCORTICOTROPIC HORMONE: See ACTH
ADVERTISING
A.M.A. resolutions on lay advertising, 818
hearing aids, Council report, 651
State Journal Advertising Bureau: See American Medical Association
ADVISORY
Committee on Internships, 839
AERONAUTICS: See Aviation
AEROSOLS
treatment of dyspnea in cardiac patient, [Monardini] 409—ab
treatment, vacuum cleaner used for, [Sheldon & others] *648
AFTERBIRTH: See Placenta
AGE
Adolescent: See Adolescence
Old Age: See Old Age
AGGLUTININS
brucella-agglutinin blocking factor in human serum, [Schuhardt] 755—ab
brucellosis diagnostic standard, Turkey, 577
cold, [Finland] 60—ab
Rh: See Rh Factor
AGITATED Depression: See Psychosis, manic depressive
AIR: See also Humidity; Oxygen
borne infection, 429—ab
cold, chest pain from inhaling, 508
Dust in, as Industrial Hazard: See Pneumonoconiosis
Embolism: See Embolism
Injection: See also Pneumoperitoneum; Pneumothorax, Artificial
insufflation of under skin in pleurisy, [Gerrits] 1081—ab
lock (positive pressure) for resuscitation in asphyxia neonatorum, [Bloxsom] *1120
Presence of Air in Cavity: See Pneumothorax
AIR FORCE: See Aviation, U.S. Air Force
AIR PASSAGES: See Respiratory System
AIRPLANES: See Aviation
ALBINISM
heredity of, 299
ALBRIGHT, FULLER, receives Goldberger Award, 657
ALCOHOL
Addicts: See Alcoholism
block (subarachnoid), for bladder dysfunction in paraplegia, [Bors] *227; *228
comparative effects in producing vasodilation, [Reedy] 678—ab
in pulmonary edema, 931—E
intake, relation to coronary disease, [Gertler & others] *1292
intravenous use in surgical patient, [Karp & Sokol] *21; (correction) 741
Intravenously as obstetric analgesic, [Chapman] 1157—ab
Methyl: See Methyl Alcohol
Northwest Institute for Scientific Study of (1st), Wash., 486
Summer School of Alcohol Studies at Yale University, 483
whisky recommended for persons with "strokes," 1274
why are alcohol beverages not permitted in gout? 1089
Wood: See Methyl Alcohol
ALCOHOLISM
alcohol and violent death, [Spain & others] *334
Alcoholics Anonymous, meeting of physicians in, 949
chronic, differentiated from so-called winos, 1274
clinic, (Conn.) 658; (U. of Cincinnati) 856
in hospitalized veterans, [Pollock & others] *1562
National Medical Council formed to rehabilitate problem drinkers in industry, 661
National States' Conference on, 1240
neuropsychic disorders in children of alcoholic parents, [Schachter] 762—ab
treatment, antabuse, [Wexberg] 1347—ab
treatment, antabuse, and personality structure, [Dale & Ebaugh] *314
treatment, antabuse, cardiovascular complications, [Macklin & others] *1377
treatment, antabuse, in the army, [Brown] 758—ab
ALDRIN
poisoning, 378—E
ALIENS: See Physicians, foreign
ALKALOSIS: See also Acidosis
due to hyperventilation, [Sattler & others] *1125
ALKAPTONURIA: See Urine
ALLEN (Raymond B.) Awards: See Prizes
ALLERGY: See also Asthma; Dermatitis venenata; Eczema; Hay Fever
A.M.A. Session on, (minutes) 1043
balata as allergen, 1345
BCG, duration, Norway, 213
cyclic attacks in childhood, [Breidahl] 292—ab
diseases in Israel, (reply) [Lass] 980
graduate course in, Canada, 487
granulomatosis and vascular disease, [Churg] 1070—ab
immunity in tuberculosis in relation to, [Myers] *1492
in childhood sinobronchitis, [Price] 754—ab
in young infant: hypoallergenic foods for infants feeding, 297
International Association of Allergists, 1st Congress, Zurich, Sept. 23-29, 486
Löffler's syndrome, [Shechter & Graub] *1420
relapsing febrile nodular nonsuppurative panniculitis (Weber-Christian disease), [Elsaman & Schneider] *1417
sensitivity to aspirin, [Walton] 968—ab
sensitivity to heavily chlorinated water, 1273
sensitivity to merailuride injection, [Reeves] *1594
sensitivity to penicillin locally, [Everett] *1314
sensitivity to streptomycin, [Cohen] 755—ab
serum sickness, effect of paraminobenzoic acid in, [Ricci] 67—ab
treatment of allergic disease of bronchi, [Feingold] *319
ALLOXAN
action on hypoglycemia, [Griffith] 1612—ab
ALOETRON Short Wave Diathermy, Model F 8100, 1235
ALOPECIA
postoperative defluvium, 300
totalis, 1619
ALTITUDE
consciousness time at, [Hall] 216—ab
High: See Aviation
ALUMINUM
cooking utensils, A.M.A. Council statement, 477
hydroxide gel to prevent gastrointestinal upsets from aureomycin, [Greenspan] 214—ab; 563—E
welding and helium, 979
ALVARENGA Award: See Prizes
AMBULANCES
effect of transportation on severity of acute poliomyelitis, [Brahdy & Katz] *772
AMEBIASIS
chronic, aureomycin in, [Hall] 1162—ab
diagnosis (laboratory) of endameba histolytica, [Young] 1156—ab
endemic, [Frazier] 873—ab
treatment, bismuth glycolylarsanilate, [Conn] 681—ab
treatment, diiodohydroxyquinoline and carbarsone, [Conn] 680—ab
treatment, present day, (correction) 268
AMERICAN: See also National; Pan American; United States; list of societies at end of letter S
Academy of General Practice, (manual on establishing department of general practice in hospitals) *123
Association of Medical Clinics, (appoint Dr. Edwin Jordan as executive director) 1055
Association of Medical Record Librarians, (list of schools for approved by A.M.A. and) *199; 201—E
Board of Obstetrics and Gynecology, (annual meetings; changes in regulation) 1142; (Dr. Faulkner heads) 1518
Board of Pathology, (examinations) 949
Board of Surgery, (credit for residency), 1138
Cancer Society fellowship award, 1519
College of Radiology, (list of schools for x-ray technicians approved by A.M.A. and), *192; 201—E; (contribution to American Medical Education Fund), 831
College of Surgeons, (surgical training), [Lehman] 279—C; [Boyd] 1151—C; [Gorrell] 1340—C
Foundation: See Foundations
Heart Association, (report), 207; (application for research grants) 1332; (revises "Examination of Heart") 1603
Hospital Association, (answer Deutsch's article in *Woman's Home Companion*: "Trouble in Our Hospitals") 202; (meeting with A.M.A.) 838
Legion, (mass blood grouping program by) 1271; (All-American Conference to Combat Communism, contribution by A.M.A.) 1328
Leprosy Missions, Inc., grants, 1142
MEDICAL DIRECTORY (prices for 19th edition discussed by A.M.A. Board), 262
Medical Education Foundation: See Foundations
AMERICAN—Continued
Medical Golfing Association, (awards) 1055
Medicine: See Medicine
Occupational Therapy Association, (list of schools of occupational therapy approved by A.M.A. and), *198; 201—E
Red Cross: See Red Cross, American
Social Hygiene Association, (examination and certification of prostitutes), 564—E
Society of Clinical Pathologists, (list of schools for medical technologists approved by A.M.A. and), *185; 201—E
Society of Plastic and Reconstructive Surgery offers awards, 661
Wormseed Oil: See Oil of Chenopodium
AMERICAN MEDICAL ASSOCIATION
Advisory Committee of Outstanding Laymen, 839
Advisory Committee on Internships, 838; 839
American Hospital Association, (answers to Deutsch's article) 202; (meeting with) 838
AMERICAN MEDICAL DIRECTORY, (prices for 19th edition discussed by Board) 262
American Medical Education Foundation, (relation to National Fund for Medical Education) 258—E; 262; (medical societies rally to support) 377—E; (contributions deductible from income tax) 655—E; (American College of Radiology contribution to) 831; (A.M.A. resolution on) 850; (gift from Woman's Auxiliary to) 942; (report) 944; (R. F. Staudacher appointed executive secretary) 1138; (urge physicians to support) 1236—E; 1238; (list of contributors) 1327—E; 1329
annual sessions, dates for: Chicago, June 9-13, 1952; New York, June 1-5, 1953, 262
Atlantic City Session (program to start Monday morning) 263; (survey of meeting) **818—E; 823; (proceedings) 829; 933; 1038**; (registration) 945; (Scientific Exhibits; awards) 1035
Board of Trustees, (abstract of minutes of meeting, April 14) 262; (portraits) 513; (report) 833; 838; 939; (new members elected) 943; (abstract of minutes of meeting, June 8-14) 1328
Bureau of Health Education, (television manual) 479—E; (electrical transcriptions; Gold Medal Doctors) 1426; (President Cline's tribute to) 1600
Bureau of Investigation (warning about demerol addict: B. J. Messing, Jr.) 750
Bureau of Legal Medicine and Legislation: See Laws and Legislation, state, weekly summary; Medicolegal Abstracts at end of letter M
Bureau of Medical Economic Research, (survey of physicians' incomes), 1237—E; [Dickinson & Bradley] *1249
By-Laws, amendments to, 934
Clinical Session: 1951, Los Angeles: Dec. 4-7, 478—E; (Scientific Exhibit) 1034
Clinical Session: 1954, Miami, Florida, 943
Commission on Financing Higher Education opposes federal aid to medical education, 376—E
Committee: See also subheads: Advisory Committee; Coordinating Committee; Interim Committee; Subcommittee Committee
Committee on Amendments to Constitution, 202
Committee on Awards, report, 1036
Committee on Blood Banks, supplementary report, 940
Committee on Chronic Diseases, report, 941
Committee on Constitution and By-Laws, 932
Committee on Distinguished Service Award, (members appointed) 943
Committee on Extension of Hospitals and Other Facilities, 844
Committee on Federal Medical Services, 845
Committee on Maternal and Child Care, 844
Committee on Medical Care for Industrial Workers, 846
Committee on Medical Motion Pictures, (effectiveness of motion pictures in medical teaching), 1328
Committee on Nervous and Mental Diseases, 838; 840
Committee on Prepayment Hospital and Medical Service, 845
Committee on Public Relations Policy, (additional members selected for) 262
Committee on Relations with Lay Sponsored Voluntary Health Plans, 846
Committee on the Twelve Point Program, 836; 838; 839
Constitution, amendments to, 937
Constitution and By-Laws, A.M.A. Committee on, 932
Cooperative Medical Advertising Bureau: See subhead: State Journal Advertising Bureau
Coordinating Committee, report, 840
Council on Foods and Nutrition, (frozen orange juice concentrate) 35; 37—E; (aluminum cooking utensils in preparation of foods) 477; (statement on wholesome food) 477; (chemical additives in foods) 731; (vitamin B_{12} and folic acid in infant nutrition) 102;

AMERICAN MEDICAL ASSOCIATION—Continued
Council on Industrial Health, (appoint member from Section on General Practice on) 1042; (disaster blueprint for industrial physician) 1064
Council on Medical Education and Hospitals, (hospital service in the U. S.) *1039; 200—E; (licensure statistics for 1950) *339; 377—E; (list of foreign medical schools) *363; 378—E; (graduate continuation courses, July 1, 1951 to Jan. 15, 1952) 563—E; *581; (quota basis for appointment of interns) 818—E; 865; (policy regarding production of physicians) 865; (new members nominated) 943; (new hospitals registered by) 958; (University of Ottawa Faculty of Medicine approved) 1152; (President Cline tribute to) 1238; (reply to Dr. Jordan's letter on opportunities for graduate study in Mexico) 1340—C
Council on Medical Service (membership) 839; (report) 843; (new members nominated) 943
Council on National Emergency Medical Service, (C. J. Stetler appointed secretary) 39; (radiological aspects of civil defense) [Lyon] *165
Council on Pharmacy and Chemistry, (current status of hormone therapy of advanced mammary cancer) 471; (tetanus spores to test antiseptics) [Brewer & McLaughlin] *729; (more factual death certificates on deaths from various poisons) 927; (list of new generic and brand names recognized by) 927; (radioactive isotopes in medical research, diagnosis, and therapy) [Kelsey] *1131
Council on Physical Medicine and Rehabilitation, (minimum requirements for acceptable pure tone audiometers for diagnostic purposes) 255; (regulations for diathermy equipment by Federal Communications Commission) 481; (hearing aids and advertising) 651; (audiometry at higher frequencies) 817; (health resort in management of chronic disease) 1324
Council on Scientific Assembly, (report) 854; (new members) 943
Distinguished Service Award, (nominations open) 38—E; (to Dr. Allen O. Whipple) 735—E; (balloting) 831
dues: See subhead: Membership
Exhibit, (Atlantic City Session) 823; 1035; (Los Angeles Clinical Session in December) 1034; (general practitioner and) 1115—ab; (at coming medical meetings) 1328
Fellowship cards, 200—E
Fellowship, A.M.A. resolution on abolishing, 261; 933; 934; 936
Film Library: See subhead: Motion Picture Film Library
financial statement, 833
foreign guests, introduction, 843
Fund for Medical Education: See subhead: American Medical Education Foundation
Goldberger Award to Dr. Albright, 657
hospitals registered by, *124
House of Delegates, (list of Reference Committee) 382; (summary of actions) 825; **(proceedings) 829; 933;** (Speaker's address) 829; 943; (election of speaker and vice speaker) 943
Hygeia: See subhead: *Today's Health*
Interim Committee on Constitution and By-Laws, (report), 937
Judicial Council, (report) 842; (new member) 943
Los Angeles Clinical Session: Dec. 4-7, 1951, 478; (Scientific Exhibit) 1034
membership cards, 200—E
membership dues, A.M.A. resolution on payment of, 933
membership dues, delinquent for 1950, A.M.A. resolution on, 936
membership dues, exemption from, 834; [Lull] 840
membership dues for 1952, Board of Trustees report on, 943
membership dues, "You and Your AMA" what are we getting for our $25? 843
membership, emeritus and retired, A.M.A. resolution on, 934
membership (restricted), A.M.A. resolution on, 848
membership, single classification, A.M.A. resolution on, 933; 936
Motion Picture Film Library (civil defense picture added to) 565; (add film "Labor and Childbirth") 1440
Motion Picture Film Library, List of Pictures Reviewed: See Moving Pictures, Medical
National Editorial Association plaque to, 841
National Education Campaign, 840; 842; (A.M.A. Committee report on) 933; (A.M.A. resolution on services of Whitaker and Baxter) 942; 943
Niehoff (Hattie A), retirement, 839; 945
nurse shortage, 820—E
Officers, (portraits) 515; (election) 943
physicians placement service, 846; 943
policy of, on production of physicians, 818—E
position on examination and certification of prostitutes, 564—E
President Cline, (San Francisco Society honors) 383; (portrait) 512; (address: stature of American medicine, 1951) *609
President Henderson address, 832
President, past president Paullin address, 831
President, past presidents should serve for 5 years, 934
President-elect, Dr. Louis H. Bauer (portrait) 734—E; (address) 944
President's Page, a monthly message, (May: farewell message of Dr. Henderson) 381; (June: first message from Dr. Cline) 822; (July) 1238; (August) 1600
Proceedings of A.M.A. Atlantic City Session, June 11-15, 829; 933; 1038
Public Relations Department expansion, 836
radio, broadcasts by, on Voice of America, 1426
Reference Committee on Amendments to Constitution and By-Laws, 831; 840; 847
Reference Committee on Insurance and Medical Service (report) 838; 847
Reference Committee on Legislation and Public Relations, 840
Reference Committee on Medical Education and Hospitals (report) 837; 839; 843
Reference Committee on Miscellaneous Business, 840; 842; 843
Reference Committee on Reports of Officers, 831
Reference Committee on Rules and Order of Business, 832
Reference Committees, A.M.A. resolution on appointment of, 942
Reference Committees of House of Delegates, list of, 382; 830
representatives, appointed, 262; 1328
representatives on Subcommittee on Health of Committee on Labor and Public Welfare, [Lehman; Lull] 202
resolution on abolishing "fellowship," 261; 933; 934
resolution on appointment of Reference Committees, 942
resolution on appointments to the Commission on Accreditation of Hospitals, 850
resolution on approving program for promoting research, education and preventive service, 848
resolution on Blue Cross benefits, 854
resolutions on Blue Shield, 850
resolution on combining hospital staff meetings with county society meetings, 853
resolution on communism, 934; 1598—E
resolution on costs of all technical and professional training, 848
resolution on death of Dr. Roy W. Fouts, 261
resolution on deficient teaching programs of dermatology and syphilology, 1040
resolution on delinquent 1950 dues, 936
resolution on disseminating factual information on practice of medicine, 261; 935
resolution on disseminating health insurance news, 261; 935
resolution on distribution of interns, 261; 854; 935
resolution on distribution of medical care, 851
resolutions on emergency medical call service, 934
resolution on emeritus and retired membership, 934
resolution on establishing single membership classification, 933; 936
resolution on exchange medical students, 852
resolution on free speech, 936
resolution on general practice residencies, 853
resolution on general practitioner being on Council on Industrial Health, 1042
resolution on hospital standardization, 850; 854
resolution on income tax exemption, 838; 840
resolution on insurance reporting forms, 851; 933
resolution on investigating school system advocating overthrow of free enterprise, 849; 1598—E
resolution on lay advertising, 848
resolution on medical prepayment plans, 851
resolution on medical supervision of curative workshops, 848
resolution on membership and fellowship, 936
resolution on national broadcasting company, 838; 839
resolution on National Education Fund, 850
resolution on payment of dues, 933
resolution on pension plans and profit sharing trusts, 849
resolution on pension plans by corporations, 849
resolution on preceptorship for medical students, 850
resolution on professional standards in hospitals to be vested in A.M.A., 853
resolution on proposing greater federal economy, 852
resolution on publicizing American medicine, 933
resolution on publicizing plans of A.M.A., 261; 935
resolution on raising funds, 936
resolution on request for Section on Public Relations, 853
resolution on restricted membership, 848
resolution on retirement benefits for professional persons 849; 1598—E
resolution on sales promotion methods of pharmaceutical houses, 854
resolution on services of Whitaker and Baxter, 942
resolution on stamps of approval for iodized salt packages, 942
resolution on standards of qualifications to permit physicians to apply radium in hospitals, 935
school for medical technologists and record librarians approved by, *185; 201—E
Scientific Exhibits, (Atlantic City Session) 823; **1035;** (Los Angeles Clinical Session) 1034; (general practitioners and) 1115—ab; (at coming medical meetings) 1328
Secretary, (report concerning membership dues) 840
Section on Anesthesiology, (minutes) 1038
Section on Dermatology and Syphilology, (minutes) 1039; (symposium on therapy) [Andres & others] *1107; [Rattner & Rodin] *1113; [Cornbleet] *1116
Section on Diseases of Chest, (minutes) 1040
Section on Experimental Medicine and Therapeutics, (minutes) 1040
Section on Gastro-Enterology and Proctology, (minutes) 1041
Section on General Practice, (established in 1945) *123; (minutes) 1041
Section on Internal Medicine, (minutes) 1042
Section on Laryngology, Otology and Rhinology, (minutes) 1043
Section on Miscellaneous Topics, (minutes) 1043
Section on Nervous and Mental Diseases, (minutes) 1044
Section on Obstetrics and Gynecology, (minutes) 1045
Section on Ophthalmology, (meeting with Association for Research in Ophthalmology) 1046; (minutes) 1046
Section on Orthopedic Surgery, (minutes) 1048
Section on Pathology and Physiology, (minutes) 1048
Section on Pediatrics, (minutes) 1049
Section on Physical Medicine and Rehabilitation, (symposium on physical medicine and rehabilitation for paraplegics) [French] *223; [Bors] *225; [Comarr] *229; [Dinken] *232; (discussion) 234; (minutes) 1050
Section on Preventive and Industrial Medicine and Public Health, (minutes) 1050; (specialist looks at everyday medical care in industry) [Billig] *1179; [Due] *1183; [Overholt] *1186
Section on Public Relations, resolution requesting formation, 853; (not to organize) 854
Section on Radiology, (minutes) 1051
Section on Surgery, General and Abdominal, (minutes) 1051
Section on Urology, (minutes) 1052
Sections, (chairmen: portraits) 517; (secretaries: portraits) 521; (meetings) 821; (registration by) 945; (exhibits; representatives) 1035; (awards for exhibits) 1036; (minutes) 1038
Session on Allergy, (minutes) 1043
Sessions on Military Medicine, (credit for attendance by Department of Defense) 492; (minutes) 1043
State Journal Advertising Bureau, 481
statement of principles for improvement and better distribution of nursing services, 836
statement on local health units for the nation, 836
Student AMA (2 members seated in the House of Delegates) 825; (R. F. Staudacher appointed executive secretary) 1138
Subcommittee on Steroids and Cancer, meeting of, 655—E
Symposium: See subheads: Section on Dermatology and Syphilology; Section on Physical Medicine and Rehabilitation
Technical Exhibits, 823
Today's Health (granted National Safety Council's Public Interest award) 486; (President Cline's tribute to) 1600
Trustees: See subhead: Board of Trustees
12 point program, 836; 838; 839
Washington Office, Summary of Federal Legislation: See Laws and Legislation, federal, weekly summary
Washington Office (National Cancer Institute) [Connery] *578; (United States Children's Bureau) [Lamborne] *1153
Whelan (Jewel F.) death of, 39
Whitaker and Baxter Advertising Campaign: See subhead: National Education Campaign
Woman's auxiliary: See Woman's Auxiliary
AMETHOPTERIN
treatment of cancer of lung, 1176
treatment of leukemia, [Hendricks] 677—ab

AMINO ACIDS: See also Methionine
hyperaminoacidemia in hypoproteinemia, [Labo] 1166—ab
intravenously, in pre- and postoperative treatment, [Westermann] 1538—ab
utilization of nonspecific nitrogen, 1137—E
5-AMINOACRIDINE HYDROCHLORIDE
studies on, [Nemir] 961—ab
p-AMINOBENZOIC ACID: See Acid
AMINOPHYLLINE
U.S.P., N.N.R., (Professional Drug Service) 927
AMINOPTERIN
toxicity: cause of hemorrhages during use, [van Creveld] 971—ab
treatment of leukemia, [Hendricks] 677—ab
treatment of lung cancer, 1176
AMITHIOZONE: (conteben; myvizone; TB I-698; tibione)
intracavernous administration, [Malluche] 407—ab
treatment of leprosy, [Vegas] 404—ab
treatment of pulmonary tuberculosis, [Livingstone] 410—ab; [Martini] 759—ab; [Shane] 1265—ab
AMMONIA
dermatitis (diaper rash) 416; (reply: use methionine in treating) [Lawson] 1546
AMMONIUM COMPOUNDS
acetate, utilization of nonspecific nitrogen, 1137—E
chloride treatment of bromide intoxication, [Cornbleet] *1116
Tetraethyl—: See Tetraethylammonium
AMNIOTIC FLUID
hemostatic action, Belgium, 670
AMPULLA OF VATER
pathology, Italy, 576
AMPUTATION: See also Limbs, Artificial
suction socket, selecting patients for above knee artificial leg, [Bechtol] *621
ANALGESIA: See Anesthesia; Pain, relief of
ANAPHYLAXIS: See Allergy
ANASTOMOSES: See Intestines; Vena Cava
ANATOMY
Morbid: See Pathology
ANCYLOSTOMIASIS
hookworm anemia in Filipino children, [Stransky] 287—ab
hookworm disease, Turkey, 1437
ANDROGENS
do they initiate prostatic cancer? 300
effect on libido, [Foss] 1168—ab
Male Sex Hormone (film review), 580
testosterone injections in polyarthritis, [Kuipers] 1168—ab
testosterone in breast cancer, [Segaloff] 1159—ab; [Foss] 1168—ab; [Nathanson] 1263—ab
testosterone in frigidity, 1273
testosterone in primary hypogonadism from removal of both testicles, 1458
testosterone in rheumatoid arthritis, [Norcross] 1349—ab
testosterone therapy and bone metastases of breast cancer, [Gilbert] 217—ab
treatment of advanced mammary cancer, Council report, 417
treatment of bleeding fibroid uterus, 691
treatment of nausea and vomiting of pregnancy, 417
treatment of rheumatic fever, [Dunn] 677—ab
ANDRUS Scholarship: See Scholarships
ANEMIA: See also Anemia, Pernicious
aplastic, due to streptomycin, [Womack] 1158—ab
aplastic, fatal pancytopenia after antihistamines, [Glassmire] 756—ab
diagnostic drifts, deceptions and misses, [Neal] *539
etiology: amorphous red phosphorus or copper? 77
etiology: radiophosphorus therapy for polycythemia, [Stroebel & others] *1304
hemolytic acute, from moth ball poisoning, [Abelson] 873—ab
hookworm, in Filipino children, [Stransky] 287—ab
in blood donor, iron therapy and high protein diet for, [Bateman] 402—ab
in cancer and metastases to bone marrow, [Shen] 500—ab
macrocytic, Mexico, 1525
megaloblastic, of pregnancy, response to crystalline penicillin, [Foy] 1539—ab
megaloblastic, penicillin for, [Foy] 683—ab
of pregnancy, intravenous iron for, [Scott] 684—ab
sickle cell, and pulmonary tuberculosis, [Herrera Cabral] 292—ab
sickle cell crisis in pregnancy, [Eddington] 1617—ab
splenic aspiration, [Morrison & others] *1575
Splenic (Banti's Disease): See Splenomegaly
treatment, cobalt compounds, [Wolff] 1081—ab
ANEMIA, PERNICIOUS
gastric tumors associated with, [Debray] 1452—ab
precancerous condition? [Weinberg] 498—ab
ANEMIA, PERNICIOUS—Continued
treatment, folic acid and vitamin B_{12}, relation to cord damage, 299
treatment, vitamin B_{12}, 1233—ab
ANESTHESIA
balanced, 885—ab
body temperatures during, in infants and children, [Bigler & McQuiston] *551
choice of, for commissurotomy for mitral stenosis, [Keown & others] *446
cyclopropane shock, (reply) [Ruben] 608
gastric contents aspirated into lungs during, [Culver] 1072—ab; 1236—E
impending death under, [Thorek] 62—ab
in Labor: See also Anesthesia, spinal
in labor, alcohol intravenously, [Chapman] 1157—ab
in labor, aspiration of vomitus during, 1236—E
in labor, cause of maternal deaths, New York City, [Faison] *1396; *1397
in labor, factors in premature infant mortality, [Wallace & others] *886
in labor, improving patient care, [Gold & others] *1459
in labor: intradermal analgesia on anterior abdominal wall, [Kovarik] 64—ab
International Anesthesia Research Society, 857
Intravenous: See also Anesthesia in labor
Intravenous Anesthesia and Tracheal Intubation (film review), 281
local anesthetics, dermatitis from, [Lane & Lulkart] *717
meperidine-nitrous oxide, without barbiturate supplement, [Ruben] 1357—ab
oxygen given when intratracheal tube fails with chest open, [Brantigan] 1534—ab
regional analgesia, pontocaine solution for, [Moore] *803
spinal, saddle block in labor, (reply) [King] 510
xenon, 1425—E
ANESTHESIOLOGY
Center of Copenhagen, Denmark, 957
International Congress of, 486
New York Society of Anesthesiologists Placement Committee, 484
ANEURYSM
aortic arteriosclerotic, intra-arterial wiring and electrothermic coagulation for, [Blakemore] 1158—ab
aortic, wrap with polyethylene strips to repair, [Cowley] 405—ab
cause of buzzing in ear, 1456
intracranial, treatment of spontaneous subarachnoid hemorrhage, [Mount] *693
ANGINA
Monocytic: See Mononucleosis, Infectious
Vincent's, outbreak, Va., 385
ANGINA PECTORIS
ballistocardiography in, [Dock & others] *1284
diagnosis, diaphragmatic flutter resembling in malingerer, [Craddock] *1315
prognosis, follow-up of 1,700 cases, [Sigler] *998
treatment, khellin, [Osher] 756—ab
treatment, radioactive iodine, [Wolferth] 1262—ab
ANGIOCARDIOGRAPHY: See Heart
ANGIOGRAPHY: See Blood Vessels, roentgen study
ANGIOLOGY: See Blood Vessels
ANGIOMA: See Hemangioma
ANGIONEUROMYOMA: See Glomus Tumor
ANGIOSPASM: See Raynaud's Disease
ANGUILLULA
aceti, vinegar eel in sputum, [DeMay & others] *645
ANILINE
methemoglobinemia in infants from marking ink on diapers, [Howarth] 1356—ab
type of hair dyes, 509
ANIMAL EXPERIMENTATION
antivivisection, 1034
ANIMALS: See also Veterinarian; under specific names as Cats, Cattle; Chicken; Rats
diseases, conference on, Tex., 1332
Experimentation on: See Animal Experimentation
ANKLE: See Tarsus
ANKYLOSIS: See Spine
ANKYLOSTOMIASIS: See Ancylostomiasis
ANOMALIES: See Abnormalities; under names of specific organs as Heart
ANOSMIA: See Smell, loss of sense of
ANOREXIA: See Appetite
ANOXEMIA: See Blood oxygen
ANTABUSE: See Tetraethylthiuramdisulfide
ANTACIDS
to prevent gastrointestinal upsets from aureomycin, [Greenspan] 214—ab; 563—E
ANTHRAX
industrial, [Wolff] 282—ab
ANTIBIOTICS: See also Aureomycin; Chloramphenicol; Neomycin; Penicillin; Streptomycin; Terramycin
act as growth stimulants, 479—E
antagonism, 1597—ab
effect of combinations, [Armstrong] 1160—ab
ANTIBIOTICS—Continued
effect on streptococcic tonsillitis, [Brink] 752—ab
microbial metabolites and plant welfare, 929—E
production in France, 1338
resistance to, basic microbiologic principles important, [Grace] 1151—C
sensitivity of gram-negative bacilli to, in vitro, [Lutz] 762—ab
synergism and antagonism; chloramphenicol interferes with penicillin, [Jawetz] 674—ab
treatment (combined) and drug resistance in urinary tract infections, [Kimmelman] 1535—ab
treatment of acne vulgaris, [Andrews & others] *1107
treatment of chorea minor of no value, 1271
treatment of chronic osteomyelitis, 297
treatment of compound fractures, [Key] *1091
treatment of experimental diphtheria infections, [Hewitt] 68—ab
treatment of staphylococcic endocarditis, [Levinson] 870—ab
treatment, schedules, [Marshall] 1062—C
treatment, wholesale use in epidemic of respiratory infections, 221
ANTIBODIES: See also Agglutinins; Antistreptolysin O
blocking, and haptens, 977
Rh: See Rh Factor
ANTICOAGULANTS: See Bishydroxycoumarin; Blood coagulation; Heparin
ANTIGENS
Artificial: See Haptens
Kell, erythroblastosis as cause of stillbirths, [Prokop] 1539—ab
Rh: See Rh Factor
ANTIHISTAMINES: See Histamine
ANTI-INFECTIVES: See Antiseptics; Sterilization, Bacterial
ANTI-LEWISITE, British: See BAL
ANTISEPTICS: See also Sterilization, Bacterial
tetanus spores used for testing, in vivo, (Council report), [Brewer & McLaughlin] *729
ANTISTREPTOLYSIN O
response to penicillin in rheumatic fever prevention, [Massell & others] *1469
ANTITOXIN: See Tetanus
ANTIVIVISECTION: See Animal Experimentation
ANTRUM: See Maxillary Sinus
ANURIA: See Urine suppression
ANUS: See also Rectum
Artificial: See Colostomy
stretching with patient's finger and rubber cot to stimulate reflex defecation, [Pollock & others] *1557
AORTA
Aneurysm of: See Aneurysm
bifurcation, resection, [Sautot] 291—ab
bifurcation, thrombosis of, vascular graft in, [Dufourmentel] 504—ab
roentgen study, translumbar arteriography, [Evans] 283—ab
AORTIC VALVE
stenosis, diagnosis [Lewes] 68—ab
APHASIA
rehabilitation of aphasic patient, 880
APOPLEXY: See Brain hemorrhage
APPARATUS: See also Audiometers; Bed; Diathermy; Hearing Aids; Inhalators; Roentgen Rays; Sunlamps; Ultraviolet Rays
device for measuring differences in height of opposite sides of body, [Seiger] *1232
glass float device to prevent air embolism in transfusions, [Wilkinson] *1318
positive pressure air lock for use in asphyxia neonatorum, [Bloxsom] *1120
thoracentesis using blood donor set, [Beech] *1597
traction device for fractures of forearm, [Wichern & Bacon] *1233
APPENDICITIS
acute, fallacies in, [Boyce] 1349—ab
acute, in children, Brazil, 1061
APPENDIX
neuroappendicopathy, [Isaacson] 960—ab
APPETITE
senile anorexia, [Vinther-Paulsen] 1453—ab
sensation of, compared with hunger, 1312—ab
APPLES
treatment of infantile diarrhea, 416
APTITUDE TEST
psychotechnical test for entrants to medical schools, Sweden, 748
AQUAPHOR
ophthalmic ointment base, 691
ARACHNODACTYLY
clinical implications of Marfan's syndrome, [Fischl & Ruthberg] 704
ARC Welding: See Welding
ARGININE
utilization of nonspecific nitrogen, 1137—E
ARMED FORCES: See also Army; Aviation, U.S. Air Force; Korean War; Navy

ARMED FORCES—Continued
Department of Defense, (asks Selective Service System for more doctors) 274; (gives credit for attendance at A.M.A. session) 492; (Drs. Blake and Spencer appointed), 1147
Institute of Pathology, new, (picture) 1245
medical officers, August induction delayed, 1523
Medical Policy Council, (Dr. Melling resigns as chairman) 210; (Dr. Lovelace to head) 1059; (Dr. Shands appointed as member) 1147
omnipotence of commanding officer; establish method to relieve mentally ill officer, [Campbell] *92
physicians not volunteering for service, [Barton & others] 958—C
Reserve Act of 1951, 1330; 1427
ARMOUR LABORATORIES to produce drugs in South America, 741
ARMS: See also Elbow; Extremities; Fingers; Hand; Humerus; Radius; Wrist
Amputation: See Amputation
Artificial: See Limbs, Artificial
forearm, pathogenesis of multiple glomus tumors, [Oberdalhoff] 1266—ab
forearm, traction device for fractures, [Wichern & Bacon] *1233
peripheral nerve injuries, [Perret] *556
postoperative lymphedema, death after stellate ganglion block, [Pailin] 500—ab
ARMSTRONG, GEORGE E. succeeds Maj. Gen. Bliss, (portraits) 746
ARMY, UNITED STATES: See also Armed Forces; Aviation, U. S. Air Forces; Korean War
Air Force Medical Service Conference of professors of military medicine, 1337
antabuse therapy, [Brown] 758—ab
civilian medical care for army personnel, form used for bill, 1059
consultants to inspect installations in Europe, 391
gastroenteritis outbreak at Fort Meade, 575; 667
graduate program extended, 1523
Hospitals: See Hospitals
Medical Graduate School, Dr. Edsall to aid, 1245
nurse recruitment goal, 391
Order of the Boar (24th annual dinner), 575
psychologists, government pays for training, 274
reserve officers ordered to active duty, 211; 274
scrub typhus expedition to Malaya, 862
Surgeon General Armstrong takes oath, succeeds Maj. Gen. Bliss, (portraits) 746
Surgeon General Bliss praises medical work in Korea, 211
women medical specialists needed, 1337
ARRHYTHMIA: See also Auricular Fibrillation; Tachycardia
cardiac, after antabuse treatment of alcoholism, [Macklin & others] *1377
cardiac, in a myasthenic, 76
cardiac, procaine amide intravenously in, [Miller & others] *1004
treatment, intravenous quinidine, [Acierno] 1442—ab
ARSENIC
poisoning treated by BAL, 1365
total amount in Fowler's solution; cause cancer? 418
treatment vs. penicillin in early and late congenital syphilis, [Debré] 1359—ab
ART: See also Physicians, avocations
paintings in hospital wards, Norway, 494
Portraits: See Portraits (cross reference)
ARTERENOL (nor-epinephrine)
hormonal cerebral vasopressor substance, 1326—E
treatment of pheochromocytoma, [Cahill] 1446—ab
treatment of shock, [Luger & others] *1592
ARTERIES: See also Aorta; Blood Vessels; Veins
Aneurysm: See Aneurysm
arteriomesenteric ileus, [Telford] 62—ab
carotid, buzzing in ear, 1456
carotid (internal), occlusion, [Fisher] 497—ab
carotid, resuscitation by intracarotid transfusion, [Costantini] 1267—ab
Coronary: See also Angina Pectoris
coronary, and hay fever, 979
coronary disease of long duration, [Boas] 961—ab
coronary disease relation to peptic ulcer, [Feldman] 498—ab
coronary heart disease, in patients aged 23 to 40, [Gertler & others] *1291
coronary insufficiency, EKG pattern in, 979
coronary, insufficiency, surgical treatment, [Vineberg] 968—ab
Coronary Occlusion: See also Thrombosis coronary
coronary occlusion, prognosis, [Sigler] *998
coronary occlusion, sudden severe precordial pain, 689
coronary occlusion, talcum in pericardial cavity for, 768
ARTERIES—Continued
Embolism: See Embolism
Inflammation: See Arteritis; Periarteritis
ligation: concurrent ligation of artery and accompanying vein, 1425—E
perfusion of liver in shock, [Delorme] 291—ab
Pressure in: See Blood Pressure
Pulmonary: See Embolism, pulmonary
roentgen study, translumbar arteriography, [Evans] 283—ab
roentgen study, treatment of spontaneous subarachnoid hemorrhage, [Mount] *693
Sclerosis: See Arteriosclerosis
surgery, Belgium, 670
Temporal: See Arteritis, temporal
Transfusion via: See Blood Transfusion
ARTERIOSCLEROSIS
aneurysms of aorta, intraarterial wiring and electrothermic coagulation for, [Blakemore] 1158—ab
atherosclerosis and, contrasted, 878
experimental, in dogs and choline [Davidson] 871—ab
industrial aspects, [Overholt] *1187
Renal Disease: See Nephrosclerosis
treatment, sympathectomy, [Edwards] 286—ab
ARTERITIS: See also Periarteritis
temporal, [Weil] 408—ab
ARTHRALGIA
periodic, in 23 members of 5 generations, [Reimann & Angelides] *713
ARTHRITIS: See also Gout; Periarthritis
Arthritis and Rheumatism Foundation, (fellowships), 568
Atrophic or Chronic: See Arthritis, Rheumatoid *following*
Degenerative: Hypertrophic: See Osteoarthritis
National Institute of Arthritis and Metabolic Disease, 954; 1436
Reiter's syndrome, ACTH intravenously, [Mandel & others] *546
treatment, ACTH and cortisone, panhypopituitarism with, [Schrock] 755—ab
treatment, androgens and 17-ketosteroid deficiency, [Dunn] 677—ab
treatment, nylon arthroplasty, [Kuhns] 1352—ab
tuberculous, *p*-aminosalicylic acid plus streptomycin, 1366
ARTHRITIS, RHEUMATOID
aggravated by pregnancy, 1364
etiology: traumatic origin, Sweden, 55
Felty's syndrome, [Hutt] 1083—ab
osteoarthritis or? 1457
polyarthritis, testosterone injections for, [Kuipers] 1168—ab
treatment, ACTH, [Giansiracusa] 1343—ab
treatment, ACTH, intravenously, [Mandel & others] *546
treatment, cortisone, [Bilka] 757—ab
treatment, cortisone, suicide following, [Borman & Schmallenberg] *337; [Hulett] 1151—C
treatment, gold dermatitis treated with BAL, [Kirsch] 754—ab
treatment, orthokinetics, 415
treatment, pituitary implantation vs. ACTH, Sweden, 55
treatment, postpartum plasma, 77; [Granirer] *995
treatment, pregnenolone, [Brugsch] 1348—ab
treatment, steroids, [Norcross] 1349—ab
ARTIFICIAL
Limbs: See Limbs, Artificial
Pneumothorax: See Pneumothorax, Artificial
Respiration: See Respiration
ASBESTOSIS: See Pneumonoconiosis
ASCARIASIS
in infants; chenopodium oil for, 416
treatment: hexylresorcinol or leche de higuerón, 1545
ASCHOFF BODIES
rheumatic nodules in tuberculosis, [Valdés-Dapena] *1566
ASCITES
adrenal cortex role in, [Moehlig] 601—ab
myxedema, cause of, [Tracey & Donovan] *1511
ASCORBIC ACID: See Acid, ascorbic
ASIA
health programs in Southeast Asia, 1436
ASPHYXIA
in newborn, positive pressure air lock for resuscitation, [Bloxsom] *1120
in newborn, treated by electrical stimulation of phrenic nerve, [Cross] 1449—ab
in postoperative and debilitated patients, tracheotomy to prevent, [Atkins] *241
Local: See Raynaud's Disease
ASPIRATION: See also Thoracentesis
of gastric contents during anesthesia and surgery, [Culver] 1072—ab
of vomitus during obstetric anesthesia, 1236—E
Pneumonia from Aspirating Oil: See Pneumonia, lipid
splenic, [Morrison & others] *1575
ASPIRIN: See Acid, acetylsalicylic
ASSOCIATED Universities, Inc., and Brookhaven National Laboratory, 211
ASSOCIATION: See also American Medical Association; Societies, Medical; Medicolegal Abstracts at end of letter M; Societies at end of letter S
for Research in Ophthalmology, combined meeting with A.M.A. Section, 1046
of American Medical Colleges, joint list of foreign medical schools, *363; 378—E
ASTHENIA
Pseudobulbar: See Myasthenia gravis
ASTHMA
cigaret smoking in patients, 1087
cyclic attacks in childhood, [Breidahl] 292—ab
etiology, heavily chlorinated water, deleterious effects, 1273
in cotton mill worker, 607
problems of geriatric asthmatic: clinical management, [Tuft] *1480
sudden death in, [Walton] 407—ab
treatment, ACTH, [Segal] 1610—ab
treatment, ACTH, intravenously, [Mandel & others] *546
treatment, cortisone orally, [Friedlaender & Friedlaender] *1381
treatment, exercise in, [Baker] 214—ab
treatment, nitrogen mustard, [Jiménez Díaz] 408—ab
treatment, surgical, [Nyst] 67—ab
ASTIGMATISM
problem of wearing glasses when working with microscope, 1544
ATAXIA
Locomotor: See Tabes Dorsalis
ATHEROSCLEROSIS: See Arteriosclerosis
ATHLETE'S FOOT: See Dermatophytosis
ATHLETICS: See also Exercise
fatal acute boxing injuries, [Jokl] 67—ab
fatal injuries in competitive sports, [Gonzales] *1506
Golf: See Golf
myositis ossificans after injury in football game, 76
Pan-American Congress of Sports Medicine (first) Argentina, 1339
rheumatic fever and, 1088
Swimming: See Swimming
tobacco smoking and physical performance, [Karpovich] 1346—ab
ATLANTA (Georgia)
detection of chronic disease, [Levin] *1397
ATLANTIC CITY Session: See American Medical Association
ATMOSPHERE: See Air
ATOMIC ENERGY
bomb injuries, 1565—ab
bombing; erect underground hospital, 1337
bombing, radiological aspects of civil defense, council article, [Lyon] *465
Brookhaven Laboratory, (Associated Universities, Inc. to administer) 211; (visitor's day—the Cosmotron) 275
burns and fruit juices, 508
medical aspects of nuclear energy, 862
U. S. Atomic Energy Commission, (appoints deputy medical director: Dr. Bugher) 211; (radiation hazards will not delay rescue) 953; (enlarge radioisotope export program) 1337
ATROCITIES
medical associations of Western Germany and Japan denounce, 656
ATROPHY: See Adrenals: Pancreas; Whipple's Disease
Muscular: See Dystrophy, muscular
AUDICON Hearing Aids, 650
AUDIOLOGY Foundation: See Foundations
AUDIOMETERS
audiometry at higher frequencies, (Council report) 817
Microtone ADC, Model 53-A, 338
minimum requirements for acceptable pure tone audiometers for diagnostic purposes, Council report, 255
AUDIOVISUAL AIDS: See Moving Pictures; Television
AUDITORY Tube: See Eustachian Tube
AUERBACH Award: See Prizes
AUFRANC, WILL H., appointed acting director of Health Resources Office, 52
AUREOMYCIN
antacids and, 563—E
as growth stimulants, 479—E
effect on response to Vitamin B_{12}, [Linkswiller] 1347—ab
mechanism of action in rickettsial and typhoid diseases, [Höring] 290—ab
toxicity: gastrointestinal upsets, antacids to prevent, [Greenspan] 214—ab; 563—E
toxicity: proctitis, and other regional mucous membrane symptoms, 767
Treatment: See also Amebiasis; Brucellosis; Endocarditis; Herpes; Infection; Pneumonia; Psittacosis; Syphilis; Urinary System Infection; Whooping Cough; Yaws
treatment, oral, of acute gonorrhea in males, [Wright] 1163—ab; [Beinfield] 1349—ab
treatment plus chloramphenicol in herpes zoster, [Carter] 1354—ab

AUREOMYSIN—Continued
treatment plus chloramphenicol in pertussis, [Buser] 1083—ab
treatment vs. roentgenotherapy in acne, [Andrews & others] *1107
AURICULAR FIBRILLATION
cinematographic and oscillographic study on exposed heart, [Prinzmetal & others] *1275
AUROTHERAPY: See Gold therapy
AUTOHEMAGGLUTININS: See Agglutinins, cold
AUTOMOBILES
accidents, alcohol and violent death, [Spain & others] *334
accidents, National Traffic Safety Contest winners, 207
accidents, traffic toll soars, 1451
drivers (state), tested, Md., 1662
for service-connected patients with spinal cord injuries, [Pollock & others] *1562
AVIAN LEUKOSIS COMPLEX
infectious hepatitis and "split eye," 1744
AVIATION
aero-medical laboratory (new), Pa., 1074
air transport of pregnant women, 253—ab
Flying Doctors Medical Service, Australia: death of Dr. John Flynn, first flying doctor, 669
medical supplies dropped from air, Australia, 670
medicine, 36—E
naval flight surgeons, class of, 1606
Space Medicine Society organized, 741
Tuttle (Arnold D.) to retire from United Air Lines, 569
visual problems of supersonic speeds, [Byrnes] 675—ab
AVIATION, U. S. AIR FORCE
Aero Medical Laboratory, 667
Boothby (W. M.) goes to New Mexico, 1245
Duff (F. L.) new Preventive Medicine Chief, 667
hospital units, 1337
inspection tour by civilian consultants, (picture), 210
Longacre Award given Col. Mashburn, 667
medical examiners, 274
research director: Dr. Lawton, 953
AVOCATIONS: See Physicians, avocations
AWARDS: See Prizes
for Military Service: See Korean War, Heroes; World War II, Heroes
AZOTEMIA: See Uremia

B

B-13
DDT emulsifiers, Brazil, 1138
BCG Vaccination: Vaccine: See Tuberculosis, immunization, BCG
BAASTRUP, C. I., death, Denmark, 277
BACILLUS: See Bacteria
BACKACHE: See also Spine, intervertebral disk
industrial aspects, [Billig] *1179
muscle relaxants in low-back disorders, 930—E
BACTEREMIA: See Meningococcemia; Septicemia
BACTERIA: See also Bacteriophage; Meningococcus; Staphylococcus; Streptococcus; Tubercle Bacillus; etc. under names of organs as Intestines
abortus Infection: See Brucellosis
aerobacter infections on infants' wards, [Smith] 1262—ab
cereus, food poisoning due to, Denmark, 1149
gram-negative, in vitro sensitivity to antibiotics [Lutz] 762—ab
in Blood: See Septicemia
Infection: See Infection
Lactobacillus Casei Factor (Synthetic): See Acid, folic
metabolites and plant welfare, 929—E
Proteus: See Proteus
pyocyaneus, external otitis, 1273
Soil, Preparation from: See Tyrothricin
vitamin (new), 1527—E
BACTERICIDES: See Antiseptics; Sterilization, Bacterial
BACTERID
pustular, (reply), [Gaul], 880
BACTERIOPHAGE
research, grant to Roosevelt Hospital, New York, 484
BACTERIUM: See Bacteria
"BAGS"
under eyes, cause, (reply) [Holden] 692
under eyes, surgical relief, (reply) [Barnes] 692
BAL
treatment of arsenic poisoning, 1365
treatment of gold dermatitis, [Kirsch] 754—ab
BALATA
as allergen, 1545
BALDNESS: See Alopecia
BALLISTOCARDIOGRAPHY
in medical practice, [Dock & others] *1284
BALLS: See Golf Balls
BALSAM
Peruvian, stimulation of granulation and epithelialization, 1089
BANDS: See Abdominal Binder
BANKS (therapeutic): See Blood Transfusion; Bones
BANTI'S Disease: See Splenomegaly
BARBER-surgeons, London, 1148
BARBITURATES: See also Phenobarbital
ipecac, sleeping pills containing an emetic, 977
intoxication, electrostimulation in respiratory emergency, [Zimmerman] *1025
intoxication, encephalopathy after, [Neumann] 1074—ab
physicians overprescribing of, [Barbash] *1584
BARDEEN Lectureship: See Lectures
BARIUM
methylcellulose modified, to diagnose intestinal lesions, [Marks] 62—ab
BARLEY
Beech-Nut cereal, 731
BAROMETRIC PRESSURE: See Humidity
BARUCH Committee achieves its goals, 653—E
BASAL Metabolism: See Metabolism, basal
BASEBALL
deaths caused by missiles, [Gonzales] *1506
BASEDOW'S Disease: See Goiter, Toxic
BASIC SCIENCE
Boards of Examiners in, *370; (list of executive officers) *372
examinations, subjects included in, *371
fees, *372
laws, states having, and year of enactment, *371
BASKETBALL
fatalities in, [Gonzales] *1506
BATHS: See Health resorts; Swimming
BATTLES: See Korean War
BAUER, LOUIS H.
A. M. A. President-elect, (portrait) 734—E; (address by) 944
BEAUTY SHOP
operators, 879
BED
Capacity: See Hospitals
Rest: See Convalescence
Rocking: See Respiration, artificial
Sanders Oscillating (Vasooscillator), 1525
BEDDING: See Mattress
BEDSORES: See Decubitus
BEDWETTING: See Urine incontinence
BEECHNUT PRODUCTS
cooked barley cereal, 731
BEESWAX
unabsorbed, as carcinogenic substance, 418
BEHAVIOR: See also Mental Hygiene, Personality
conference on human behavior, Illinois, 264
disorders in children, Paris, 956
disorders in epileptic children, [Bradley] *436
BEJEL
desert child syphilis, Turkey, 54
BELGIAN
Congo: See Congo
BELL fracture table, roentgen apparatus attachable to, [Runge & others] *1026
"BELLY BANDS": See Abdominal Binder
BENEMID: See Probenecid
BENODAINE: See Piperoxan
BENZAZOLINE (Priscoline)
comparative effects in producing vasodilation, [Reedy] 678—ab
BENZINE: See Naphtha
BENZOCAINE: See Ethyl Aminobenzoate
BENZODIOXAN
test (false positive), [Place] *1227
BEQUESTS: See Donations (cross reference)
BERIBERI
heart in Iowa veterans, [Gutenkauf] 871—ab
BERYLLIUM
granulomatosis, effect of ACTH, [Kennedy] 498—ab
poisoning, 980
poisoning (chronic), spontaneous remission, [Cass] 1528—ab
BESNIER-Boeck-Schaumann Disease: See Sarcoidosis
BEVERAGES: See Milk; Water
Alcoholic: See Alcohol
BEVERIDGE Plan: See National Service Plan (England)
BEZOAR: See Phytobezoar
BIBLE
allusions to clotting in [Macht] 280—C; [Bousfield] 1152—C; [Phillips] 1526—C
BICARBONATE of Soda: See Sodium bicarbonate
BILE DUCTS: See also Gallbladder; Liver
cancer [Wood] 964—ab
hepaticojejunostomy following common duct injury, (film review) 398
obstruction by portal nodes caused jaundice in leukemia, [Bower & Coca-Mir] *987
pathology, Italy, 576
BILHARZIASIS: See Schistosomiasis
BILLS: See Fees
Legislative: See Laws and Legislation
BINDER: See Abdominal Binder
BIOCHEMISTRY
new department, (Pa.) 486; (Ill.) 1053
BIOLAC-Modified Powdered Milk, 1029
BIOPSY: See also Liver; Lymphatic System; Uterus Cancer
during operation, Brazil, 671
BIRDS: See Fowls; Psittacosis
BIRTH: See Labor
in Hospital: See Hospitals, maternity
Multiple: See Triplets; Twins
Premature: See Infants, premature
Rate: See Vital Statistics
Stillbirth: See Stillbirth
Weight: See Infants, Newborn, weight
BIRTH CONTROL: See Contraception
BISHYDROXYCOUMARIN (dicumarol)
continued use after myocardial infarction not indicated, 221; (reply) [Wolffe] 1274
sensitized clotting time at bedside, [de Takats] *1370
toxicity: hemorrhagic pericarditis in acute myocardial infarction, [Goldstein & Wolff] *616
BISMUTH
glycolylarsanilate in ameblasis, [Conn] 681—ab
treatment plus penicillin in primary syphilis, [Jones] 602—ab
BITES
from reptiles and insects, information desired, [Wilson] 1526—C
BLACK-Stevenson Cancer Foundation: See Foundations
BLACKWELL Medal: See Prizes
BLADDER: See also Urinary System
cancer, cystectomy and urinary diversion in, [Thomas] 1534—ab
cancer, smear of urinary sediment in diagnosis, [Harrison] 288—ab
congenital obstructive lesions at ureterovesical junction, [Burns & Harvard] *419
cystocele, cause of stress incontinence: Kelly or Kennedy operations, [Counseller] *27
exstrophy [Burns & Harvard] *421; (discussion) *429
inflammation, cystitis following intercourse, 1546
lesions in dyestuff workers, [Müller] 760—ab
neurogenic, after spinal injuries, [Pollock & others] *1555
neurogenic, rehabilitation in spinal cord injuries [Bors] *225
substitute: using cecum, [Merricks] 1534—ab
surgery, resection of vesical neck in children, [Howard & Buchtel] *1202
BLASTOMYCOSIS
pulmonary lesions in, Brazil, 1061
systemic, stilbamide for, [Schoenbach & others] *1317
BLEB: See Blister
BLEEDERS: See Hemophilia
BLEEDING: See Hemorrhage
BLINDNESS: See also Vision
Color: See Color Blindness
course in Braille, 483
etiology, Committee on Statistics of the Blind seeks data on exact causes, 1141
etiology: syphilis and gonorrhea, Ohio, [Freeble & Donohue] *1500
etiology: welding, 417
National Advisory Committee for the Blind, 1034
Night: See Night Blindness
prevention also research, A.M.A. resolution on approval of program, 848
BLISS, RAYMOND W., surgeon general, (praises medical work in Korea) 211; (retires; photo) 746
BLISTER
adult form of chronic porphyria, [Brunsting & others] *1207
fluid, cytologic smear in: Tzanck technic, [Blank & others] *1410
BLOATING: See Flatulence
BLOOD: See also Hemo—:
acidosis, in poliomyelitis with respiratory insufficiency, [Plum & Wolff] *442
amino acids, hyperaminoacidemia in hypoproteinemia, [Labo] 1166—ab
aureomycin levels and antacids, 563—E
Bank: See Blood Transfusion
bromide, levels in during bromide poisoning, 1364
bromide levels, technic for determining, [Cornbleet] *1117
carbon dioxide combining power in acute poliomyelitis with respiratory insufficiency, [Plum & Wolff] *442
Cells: See also Erythrocytes
cells, fatal pancytopenia after antihistamines, [Glassmire] 756—ab
cells, plasma L. E. test in lupus erythematosus, [Haserick] *16; 819—E
changes after operations, [Wilkinson] 603—ab
changes which predispose to shock, [Philpott] 1446—ab
cholesterol esters, in differential diagnosis of jaundice, [King & Taubenhaus] *1298
cholesterol in hepatic necrosis, [Zimmerman] 601—ab
cholinesterase levels in parathion poisoning from tree spray, [Williams] 1444—ab
Circulation: See also Vasomotor System

BLOOD—Continued
Circulation (film review), 1255
Clot: See Blood coagulation; Thrombophlebitis; Thrombosis
Coagulation: See also Blood prothrombin; Hemophilia
Coagulation, Anticoagulants: See also Bishydroxycoumarin; Heparin
coagulation, anticoagulants, [Armas Cruz] 109—ab
coagulation, anticoagulants in acute frostbite, [Theis & others] *992
coagulation, Biblical allusions to clotting, [Macht] 280—C; [Bousfield] 1152—C; [Phillips] 1526—C
coagulation, effects of cream on, [Waldron] 1259—ab
coagulation (normal time) in hemophilia [Merskey] 1353—ab
coagulation, sensitized clotting time, simple test for bedside study [de Takats] *1370
Collection Program: See Blood Transfusion
conglutinating activity in fetal and infant serums, [Seelich] 1269—ab
Donors: See Blood Transfusion, blood donors
Dyscrasia: See also Anemia: Anemia, Pernicious; Erythroblastosis, Fetal; Leukemia: Polycythemia
dyscrasia, research in blood diseases, 661
dyscrasia, splenic aspiration in, [Morrison & others] *1575
epinephrine (circulating), regitine test, [Emlet & others] *1383
Flow: See Blood circulation
Globulin: See Blood proteins
gonadotropins (serum) in hypertension in toxemia of pregnancy, [Govan] 1540—ab
Groups: See also Agglutinins, cold; Rh Factor
groups, blood-typing program for college women, New Jersey, 659
groups, mass blood grouping program of American Legion, 1271
groups, routine blood grouping in maternity service in New York hospitals, [Faison] *1395
pH of venous blood in alkalosis due to hyperventilation, [Sattler & others] *1125
Infection: See Meningococcemia; Septicemia
Injection of Whole Blood or Its Derivatives: See Blood Transfusion; Hemotherapy
Loss of: See Hemorrhage
Menstrual: See Menstruation
Methemoglobin in: See Methemoglobinemia
oxygen, anoxemia test, RS-T segment, T wave and heart rate after [Storch & Master] *1011
oxygen, in acute poliomyelitis with respiratory insufficiency, [Plum & Wolff] *442
oxygen, prognostic value of hypoxemia test, [Björck] 290—ab
picture, chloramphenicol effect on, [Binaghi] 875—ab
Plasma: See various subheads under Blood; Blood Transfusion; Plasma
Platelets: See Purpura
potassium, hypopotassemia, [Osnes] 1268—ab
potassium, hypopotassemia and insulin, Israel, 1247
potassium, hypopotassemia in diabetic coma, [Bertolini] 1166—ab
potassium (serum) lowered in periodic paralysis, [Hammes] *1401
Preservation: See Blood Transfusion, blood bank
Pressure: See BLOOD PRESSURE
proteins, extreme hyperglobulinemia in hepatic necrosis, [Zimmerman] 601—ab
proteins, hypoproteinemia, hyperaminoacidemia in, [Labo] 1166—ab
proteins (serum), diagnostic value of thermal coagulation tests, [Tzanck] 1268—ab
Prothrombin: See also Blood coagulation
prothrombin, hypoprothrobinemia after propylthiouracil, [Craddock] 1262—ab
reabsorption of intrapleural injection of blood by hyaluronidase, [Amistani] 685—ab
salicylates level after ingesting acetylsalicylic acid (aspirin) 297
sedimentation, cortisone and ACTH effect on, [Fischel] 1340—C
sedimentation reaction in gastric ulcer, [Mathisen] 761—ab
Serum: See various subheads under Blood; Blood Transfusion
Sugar: See also Diabetes Mellitus
sugar, hyperglycemia and furunculosis, 1620
sugar hypoglycemia, alloxan effect on, [Griffith] 1612—ab
sugar, hypoglycemia, headache and vertigo with, [Harrill] 678—ab
sugar, hypoglycemic reactions to insulin, [Benjamin] *813
sugar, hypophysis regulation, [Horst-Meyer] 1266—ab
Tests: See Blood groups; Syphilis serodiagnosis
thiocyanate level, estimation, 77
Transfusion: See BLOOD TRANSFUSION

BLOOD—Continued
Types: See Blood groups
Vessels: See BLOOD VESSELS
volume (erythrocyte) and ACTH, [Garcia] 1447—ab
BLOOD PRESSURE
in toxemia of pregnancy, [Mukherjee] 70—ab
low, after antabuse treatment of alcoholism, [Macklin & others] *1377
venous, determinations in postphlebitic syndrome, [De Camp] 216—ab
BLOOD PRESSURE, HIGH: See also Nephrosclerosis
American Foundation for High Blood Pressure, research report, 661
ballistocardiography [Dock & others] *1284
diagnosis, piperoxan and regitine as routine tests, [Emlet & others] *1383
diagnosis, piperoxan (benzodioxan) false positive test, [Place] *1227
essential, discussed at Italian Society of Internal Medicine, 56
essential, fever therapy, 1365
essential, impaired cerebral function in, [Apter] 1344—ab
essential, obstetrical considerations in, [Nordenstrahl] 1268—ab
etiology: pheochromocytoma, [Riishede] 1541—ab; [Faber] 1541—ab
etiology: role of liver in, [Davis] 399—ab
etiology: role of somatotropic hormone, [Selye] 290—ab
high diastolic without systolic hypertension, 1177
in toxemia of pregnancy, gonadotropin concentration in serum, [Govan] 1540—ab
industrial aspects, [Overholt] *1187
portal, portacaval anastomosis for, [Auvert] 684—ab
prognosis, [Griep] 751—ab
treatment, methonium compounds, [Locket] 1265—ab
treatment, rice diet, [Loofbourow] 1348—ab
treatment, roentgen irradiation of thoracic sympathetic ganglions, [Wolf] 1540—ab
treatment, sympathectomy, [Chris] 1165—ab
treatment, thoracolumbar sympathectomy, [Ramos] 1359—ab
treatment, veriloid, [Kauntze] 1080—ab
BLOOD TRANSFUSION
blood bank blood, syphilis transmitted by? [Probey] 1537—ab
blood banks, A.M.A. Committee on, 940
blood banks, American Red Cross program, (Maj. Gen. Grant to direct program) 52; (list of 41 regional centers) 941
blood banks, Blumberg Memorial, Illinois, 1331
blood banks, Illinois Association of, 946
blood banks, information on, 202
blood donor anemia, iron therapy plus high protein diet for, [Bateman] 102—ab
blood donor set used for thoracentesis, [Beech] *1597
exchange, in hemolytic disease of newborn, [Kölbl] 1541—ab
exsanguinotransfusion in hepatorenal syndrome, [Snapper] 1157—ab
glass float device to prevent air embolism in, given under pressure, [Wilkinson] *1318
in wartime, organization, Sweden, 1524
intra-arterial, [Wiener] 57—C
intracarotid, resuscitation by, [Costantini] 1267—ab
mismatched, alkalinization with sodium bicarbonate used in 1925, [Baker & Dodds] 1063—C
mismatched, successful treatment, [Tisdall] 672—C
syphilitic blood and, 1088; [Probey] 1537—ab
viral hepatitis after, [Ginzburg] 1078—ab
BLOOD VESSELS: See also Aorta; Arteries; Cardiovascular System; Vasomotor System; Veins
anomalies, compression of trachea or esophagus in, [Gross] 215—ab
Disease: See also Arteriosclerosis; Cardiovascular Disease; Phlebitis; Raynaud's Disease; Telangiectasia; Thrombophlebitis; Varicose Veins
disease and allergic granulomatosis, [Churg] 1070—ab
disease (degenerative) in diabetes, preventing, [Wilson] 1529—ab
disease, ether, alcohol, tetraethylammonium and priscoline compared, [Reedy] 678—ab
diseases (peripheral), dihydrogenated alkaloids of ergot in, [Popkin] 1344—ab
disease (peripheral), Sanders Oscillating Bed (Vasooscillator), 1325
disease (peripheral), surgical treatment, [de Takats] 286—ab
graft in thrombosis of aortic bifurcation, [Dufourmentel] 504—ab
International Society of Angiology, 207
intracardiac and rectal temperature, [Eichna] 1346—ab

BLOOD VESSELS—Continued
ligation: concurrent ligation of artery and accompanying vein, 1425—E
roentgen study, cerebral angiography, 1437
roentgen study, complications of cerebral angiography, [Dunsmore] 285—ab
roentgen study, selective angiography of pulmonary vessels, [Stanischeff] 685—ab
thermal gradients in vascular system, 1137—E
BLOSS, JAMES RAMSDELL
death: portrait, 208
BLUE CROSS PLANS: See Hospitals, expense insurance
BLUE SHIELD: See Medical Service Plans
BLUSHING of face and ears in man, 1272
BOARD: See under specific names as American Board; National Board; State Board of Health: See Health
of Trustees: See American Medical Association
BOATS: See Ships
BODY
Build: See Constitution
Growth of: See Growth
Heat, Production: See Metabolism, basal
Height: See also Dwarfism
height, device for measuring differences in opposite sides of body, [Seiger] *1232
Organs: See Viscera
Position: See Posture
Temperature: See Fever; Temperature, Body
Weight: See Infants, Newborn; Obesity
BOECK'S Sarcoidosis: See Sarcoidosis
BOILS: See Furunculosis
BOLÍVAR, SIMON, Dr. Prospero physician to, monument honoring, Colombia, 56
BOMBS
Atomic: See Atomic Energy
BONE MARROW: See also Osteomyelitis
anemia in cancer and metastases to, [Shen] 500—ab
plasma L. E. test in systemic lupus erythematosus, [Haserick] *16; 819—E
use in radiation injury, [Talbot] 1535—ab
BONES: See also Cartilage; Cranium; Orthopedics; Osteo—; Ribs; Spine; under names of specific bones
Atrophy: See Osteoporosis
bank, refrigerated homogenous bone transplants, [Wilson] 1159—ab
cancer, metastases from breast, [Pulvermacher] 410—ab
cancer, metastatic from breast and testosterone therapy, [Gibert] 217—ab
cysts, 690
demineralization of, and osteoporosis, 765
demineralization of carpal bones, 766
Epiphysis: See Epiphysis
fibrous dysplasia, [Strassburger] 1159—ab
Formation in Muscle: See Myositis ossificans
Fracture: See Fractures
grafts, refrigerated homogenous, [Wilson] 1159—ab
hypervitaminosis A with bilateral temporal hyperostoses, [Bair] *1574
hypervitaminosis A with infantile cortical hyperostosis, [Rineberg & Gross] *1222
infantile cortical hyperostosis with involvement of ilium, [Racely] 1611—ab
surgery, leg lengthening, [Allan] 69—ab
Tuberculosis: See also Arthritis, tuberculous
tuberculosis of pubic bone, [Amadei] 1264—ab
BOOKS: See also Journals; Library; Book Reviews at end of letter B
reach Japanese hospital, 857
BORDEN Award: See Prizes
BORIC ACID: See Acid
BORRELIA vincenti Infection: See Angina, Vincent's
BOSCHI'S Treatment: See Tetanus
BOTTLES: See Labels
BOTULISM
Clostridium botulinum in fatal wound infection, [Davis & others] *646
BOVIE Electrosurgical Unit, Model O-4, 1135
BOWEL Movement: See Feces
BOWELS: See Intestines
BOWMAN GRAY SCHOOL OF MEDICINE
celebrates 10th anniversary, 384
BOXING
fatalities in, [Gonzales] *1506
injuries, acute fatal, [Jokl] 67—ab
BRAIN: See also Cranium; Head; Meninges; Nervous System
concussion, cervical sympathetic procaine block in, [Blumensaat] 1359—ab
diencephalic syndrome, flushing of face and ears, 1272
diencephalohypophysial disturbance and carbohydrate metabolism, [Horst-Meyer] 1266—ab
diencephalohypophysial origin of toxic diffuse goiter, [de Gennes] 217—ab
Disease: See also Epilepsy
disease, dural sinus venography in, [Ray] 285—ab
disease, encephalopathy after barbiturate intoxication, [Neumann] 1074—ab
disease, hypertensive encephalopathy, benzodioxan test positive in, [Place] *1227

BRAIN—Continued
disease, laughter (sham mirth) in, [Martin] 1352—ab
echinococcosis, hydatid cyst, [Arana Iniguez] 1451—ab
electroencephalogram after treatment for coma, 298
electroencephalography, electrical potentials in death, 1366
electroencephalography in deafness, [Marcus] 59—ab
function impaired in essential hypertension, [Apter] 1344—ab
Hemorrhage: See also Meninges hemorrhage
hemorrhage, whisky recommended for persons with "strokes" 1274
hormonal cerebral vasopressor substance, 1326—E
Inflammation: See Encephalitis
Injury: See also Brain concussion
injury and menstruation disorders, [Kinnunen] 759—ab
injury at birth, late effects, [McKhann] 601—ab
injury (fatal acute) from boxing, [Jokl] 67—ab
injury (fatal) in sports, [Gonzales] *1506
injury, stem damage from radiation, 1136—E
pneumatotherapy with pure oxygen, [Abély] 1171—ab
pseudotumor or intracranial hypertension of unknown cause, [Elkins] 64—ab
roentgen study, angiography, Paris, 1437
roentgen study, complications of cerebral angiography, [Dunsmore] 285—ab
scars in children, [Klein] 1083—ab
surgery, brain function studies after lobotomy and topectomy, Paris, 955
surgery, cortical excision for epilepsy, 820—E; [Walker] 1075—ab
surgery, decompressive trephining of subarachnoidal cisterns for auditory vertigo, [Piquet] 292—ab
surgery, experiences with transorbital leukotomy, [Moore] 1344—ab
surgery, hemispherectomy in infantile hemiplegia, [Krynauw] 70—ab; 1171—ab
surgery, lobectomy for tumors of brain, [Huber] 1172—ab
surgery, prefrontal compared with transorbital lobotomy, [Freeman] 1351—ab
surgery, prefrontal lobotomy for involutional melancholia in women, 1458
surgery, prefrontal lobotomy for mental diseases, Italy, 212
surgery, prefrontal lobotomy for relief of pain, [Javier] 875—ab
surgery, results of topectomy, [Hoch] 1351—ab
surgery, third ventriculostomy for hydrocephalus in children, [Voris] 497—ab
surgery, transorbital leucotomy in a state hospital program, [Moore & others] *324
Syphilis: See Neurosyphilis
tumors, cerebral lobectomy for, [Huber] 1172—ab
tumors, foul taste before spells of unconsciousness, 768
BREAST
cancer, [McCormick] *461
cancer (advanced), current status of hormone therapy, Council report, 471
cancer (bilateral) of male breast after estrogen therapy, [McClure & Higgins] *7; [McClure] 1608—C
cancer, chronic cystic fibrosis and birth control, **144:** 1602, Dec. 30, 1950; (replies) [Fitts & Hoffman; Kennedy; Greenhill] **146:** 78, May 5, 1951
cancer, cytological diagnosis of, with Paget's disease, [Eisen] 870—ab
cancer, encapsulated, [Eckstam] 288—ab
cancer, irradiation, estrogens, androgens and castration in, [Nathanson] 1263—ab
cancer, metastases to bone, [Pulvermacher] 419—ab
cancer metastases to bone and testosterone therapy [Gibert] 217—ab
cancer, metastatic, inoperable, 416
cancer, prognosis [Bloom] 502—ab
cancer, testosterone therapy, [Segaloff] 1159—ab
cancer, testosterone therapy effect on libido, [Foss] 1168—ab
cancer, will small doses of estrogen cause? 222
Feeding: See Infants, feeding
inflammation, chronic cystic fibrosis and birth control, **144:** 1602, Dec. 30, 1950; (replies) [Fitts & Hoffman; Kennedy; Greenhill] **146:** 78, May 5, 1951
Milk: See Lactation: Milk, human
tumors, benign and malignant, [McCormick] *461
tumors, localization of papillomas of lactiferous ducts, [Kastrup] 1453—ab
BREATH
Shortness of: See Dyspnea
BREATHING: See Inhalators; Respiration
Artificial: See Respiration; Respirators
Labored: See Dyspnea
BREMIL Powdered Infant Food, 1029
BRIGHT'S Disease: See Nephritis
BRITISH
Anti-Lewisite: See BAL
Government, National Health Service: See National Health Service
Medical Association, (South African meeting cancelled) 570
medical mycology in Great Britain, [Georg] 395—C
BROADCASTING: See Radio; Television
BROCK PROCEDURE to relieve pulmonary stenosis, [Downing] 406—ab
BROMIDES
poisoning, ammonium chloride vs. sodium chloride for [Cornbleet] *1116
poisoning, bromide level in blood serum during, 1364
poisoning, continuing hazard [Hodges] 1343—ab
poisoning, electrostimulation in respiratory emergency, [Zimmerman] *1025
tetraethylammonium, untoward reactions to tests for pheochromocytoma, [Bierman] 1348—ab
BRONCHIECTASIS
treatment (non-surgical) recommended 1272
treatment, segmental resection, [Conklin & Westerberg] *633
vinegar eel in sputum, [DeMay & others] *645
BRONCHITIS
allergy in childhood sinobronchitis, [Price] 754—ab
Tuberculous: See Bronchus, tuberculosis
BRONCHOGRAPHY: See Bronchus, roentgen study
BRONCHUS: See also Bronchiectasis; Bronchitis
cancer, [Harvey] 71—ab
cancer, differential diagnostic problem, [Moyer] 283—ab
cancer, early detection of bronchogenic cancer, [Paulson & Shawl] *525
disease (allergic), treatment, [Feingold] *319
involvement in primary tuberculosis of childhood, [Laff & others] *778
involvement in pulmonary tuberculosis, [Jones] 1070—ab; [Veeneklaas] 1357—ab
roentgen study, bronchography with water soluble contrast substance, [Schultz-Møller] 604—ab
tuberculosis, streptomycin for, [Marshall] 291—ab
tumors, adenoma, [Doty] 1261—ab
BRONZE DIABETES: See Hemochromatosis
BROOKHAVEN National Laboratory: See Atomic Energy
BROWNE, DENIS
technic for repair of hypospadias and bladder exstrophy, [Burns & Harvard] *421
BRUCELLA
agglutinin blocking factor in human serum, [Schuhardt] 755—ab
BRUCELLOSIS
bovine, control by pasteurizing all milk supplies, [Prince] 396—C
diagnostic drifts, deceptions and common misses, [Neal] *537
diagnostic standard agglutination, Turkey, 577
endocarditis, [Hart] 1449—ab
in Italy and Spain, 1519
lung changes in, [Orie] 971—ab
treatment, aureomycin, [Mazaré] 1167—ab
treatment, various drugs, [Bassi] 1171—ab
BUCCIANTE, ALFREDO, death, Italy, 56
BUFFALO, University of: See University
BUFO Reaction: See Pregnancy, diagnosis
BUNNELL'S pull-out wire sutures, [Moberg] 760—ab
BULL, P., death, Norway, 1247
BULLA: See Blister
BUREAU: See Children, U. S. Children's Bureau
A.M.A.: See American Medical Association
BURLINGTON HOUSE
Royal Society holds demonstration at, London, 1148
BURMA mission, 954
BURNS
chemical, of eyes, first aid by physicians, [Knapp] *12
Curling's ulcer, 107—ab
double duodenal ulcer with perforation after [Mynhardt] 1084—ab
research on, by U. S. Navy, 51
study of, Texas, 856
treatment, ACTH, in severely burned children, [Adams & others] *31
treatment, acid débridement with phosphoric-acid-gel, [Schweitzer] 1536—ab
treatment, repair surface defects of foot, [Brown & Fryer] *628
BURSITIS
treatment, 1620
BUTACAINE SULFATE (butyn)
dermatitis from, [Lane & Luikart] *718
BUTAMBEN PICRATE (butesin)
dermatitis from, [Lane & Luikart] *718
BUTESIN: See Butamben picrate
BUTYN: See Butacaine Sulfate
BUZZING in ear, 1456

Book Reviews

Abramson, H. A., editor, Somatic and Psychiatric Treatment of Asthma, 877
Acid
Biochemistry of Glucuronic Acid, [Artz & Osman] 72
Adler, F. H., Norris, W. F., and de Schweinitz, G. E., Physiology of the Eye: Clinical Application, 220
Adler's Place in Psychology, [Way] 220
Adolescence
Somatic Development of Adolescent Boys, [Stolz & Stolz] 1362
Adsorption and Chromatography, [Cassidy] 975
Allergy
Alcoholism
Nutrition and Alcoholism, [Williams] 1618
Allergy: Facts and Fancies, [Feinberg] 1454
American Association for Health, Physical Education and Recreation
Developing Democratic Human Relations, 1618
American Chemical Society
Medicinal Chemistry, [Suter] 1543
American College of Surgeons
Surgical Forum, 686
American Diabetes Association
Diabetes Guide Book for Physicians, 606
Amino Acid Composition of Proteins and Foods, [Block & Bolling] 507
Anatomy: See also Pathology; Physiology
Anatomy of Nervous System, [Larsell] 413
Atlas of Human Anatomy for the Artist, [Peck] 1455
Synopsis of Surgical Anatomy, [McGregor] 293
Taschenbuch der Anatomie, [Voss] 507
Anesthesia
Nitrous Oxide-Oxygen Anesthesia, [Clement] 974
Aphasia
Recovery from Aphasia, [Wepman] 763
Appendicitis
Acute Appendicitis and Its Complications, [Boyce] **143:** 690, June 17, 1950
Arold, C., Die Tuberkulose: Ihre Erkennung und Behandlung, 606
Arteriosclerosis
Low Fat, Low Cholesterol Diet: What to Eat and How to Prepare It, [Robbin & others] 975
Artz, N. E., and Osman, E. M., Biochemistry of Glucuronic Acid, 72
Assmann, H., Die klinische Röntgendiagnostik der inneren Erkrankungen, 1455
Association of Official Agricultural Chemists
Official Methods of Analysis, [Lepper & Fisher] 414
Association of Vitamin Chemists, Inc.
Methods of Vitamin Assay, 976
Asthma
Somatic and Psychiatric Treatment of Asthma, [Abramson] 877
Atlas
Atlas of Human Anatomy for the Artist, [Peck] 1455
Atomic Energy
Radiation Monitoring in Atomic Defense, [Gray & Martens] 74
Toxicology of Uranium: Survey and Collected Papers, [Tannenbaum] 1542
Bacteriology: See also Microbiology
Elements of Bacterial Cytology, [Knaysi] 976
Baitsell, G. A., Human Biology, 688
Bandaging
Illustrations of Bandaging and First-Aid, [Oakes] 296
Beckman, H., editor, 1950 Year Book of Drug Therapy, 507
Bedson, S. P., and others, Virus and Rickettsial Disease, 414
Begin Now—to Enjoy Tomorrow, [Giles] 1618
Behavior
Bases of Human Behavior: Biologic Approach to Psychiatry, [Saul] 507
Problems of Infancy and Childhood: Transactions of Fourth Conference, March 6-7, 1950, New York, [Senn] 1360
Bell, G. H., Davidson, J. N., and Scarborough, H., Textbook of Physiology and Biochemistry, 1455
Berke, J., and Wilson, V., Watch out for the Weather, 763
Bersin, T., Kurzes Lehrbuch der Enzymologie, 1618
Biochemistry
Advances in Enzymology and Related Subjects of Biochemistry, [Nord] 1543
Biochemistry of Glucuronic Acid, [Artz & Osman] 72
Textbook of Physiology and Biochemistry, [Bell & others] 1455
Biography: See also Physicians
Florence Nightingale, [Seymer] 605
Florence Nightingale 1820-1910, [Woodham-Smith] 605
Biology
Human Biology, [Baitsell] 688
Biometry
Biometric Analysis: An Introduction, [Treloar] 1270

Book Reviews—Continued
Birch, C. A., Emergencies in Medical Practice, 220
Blake, R. R., and Ramsey, G. V., Perception: Approach to Personality, 1361
Block, R. J., and Bolling, D., Amino Acid Composition of Proteins and Foods, 507
Blood
Blood Clotting and Allied Problems: Transactions of Third Conference, January 23-24, 1950, 606
Blood Groups in Man, [Race & Sanger] 877
Introduction to Universal Serologic Reaction in Health and Disease, [Kahn] 1360
Klinische Haematologie, [Siebert] 605
Physiology and Pathology of Hemostasis, [Quick] 1270
Plasma Clot Suture of Peripheral Nerves and Nerve Roots, [Tarlov] 219
Blood Pressure
Factors Regulating Blood Pressure: Transactions of Fourth Conference, February 23-24, 1950, New York, [Zweifach] 1362
Rice, Dietary Controls and Blood Pressure with Menus and Recipes, [Seymour] 1618
Blotner, H., Diabetes Insipidus, 764
Bones: See Orthopedics: Osteology
Boyce, F. F., Acute Appendicitis and Its Complications, **143**: 690, June 17, 1950
Brachet, J., Chemical Embryology, 296
Brain
Abnormal Pneumoencephalogram, [Davidoff & Epstein] 976
Normal Encephalogram, [Davidoff & Dyke] 976
Psychosurgery in Treatment of Mental Disorders and Intractable Pain, [Freeman & Watts] 974
Brodnitz, F. S., Your Sinus Troubles and Treatments, 763
Brody, W., Personnel Administration in Public Health Nursing, 876
Broglie, M., and Dennig, H., Lehrbuch der inneren Medizn, 294
Brooks, C. E. P., Climate in Everyday Life, 1543
Brown, J. W., Congenital Heart Disease, 688
Butler, J. A. V., Man is a Microcosm, 1455
Cameron, D. S., General Psychotherapy: Dynamics and Procedures, 974
Cancer
Malignant Disease of Female Genital Tract, [Way] 763
Terminal Care for Cancer Patients, 293
"Your Prostate Gland": Letters from a Surgeon to His Father, [Nesbit] 73
Cardiovascular System: See also Heart
Diseases of the Heart and Circulation, [Wood] 1086
Cassidy, H. G., Adsorption and Chromatography, 975
Chemistry: See also Biochemistry; Pharmacy
Adsorption and Chromatography, [Cassidy] 975
Advances in Enzymology and Related Subjects of Biochemistry, [Nord] 1543
Allgemeine und anorganische chemie, [Schwarzenbach] 975
Chemical Embryology, [Brachet] 296
Elsevier's Encyclopaedia of Organic Chemistry, [Radt] 74; 295
Encyclopedia of Chemical Technology, [Kirk & Othmer] 295
Enzymes: Chemistry and Mechanism of Action, [Sumner & Myrbäck] 1542
Klinische Chemie und Mikroskopie, [Hallmann] 687
Kurzes Lehrbuch der Enzymologie, [Bersin] 1618
Medicinal Chemistry, 1543
Official Methods of Analysis of Association of Official Agricultural Chemists, [Lepper & Fisher] 414
Chemotherapy
Recent Advances in Chemotherapy, Volume II (Malaria), [Findlay] 293
Chewing Approach in Speech and Voice Therapy, [Weiss & Beebe] 293
Chicago Area
Terminal Care for Cancer Patients, 293
Children: See also Infants; Pediatrics
Handbook of Child Guidance, [Harms] 505
Problems of Infancy and Childhood: Transactions of the Fourth Conference, March 6-7, 1950, New York, [Senn] 1360
Somatic Development of Adolescent Boys: Study of Growth of Boys During Second Decade of Life, [Stolz & Stolz] 1362
Symposium on the Healthy Personality, [Senn] 506
Cholesterol
Low Fat, Low Cholesterol Diet: What to Eat and How to Prepare It, [Robbin & others] 975
Chromatography
Adsorption and Chromatography, [Cassidy] 975
Chwalla, R., Urologische Endokrinologie, 505
Clement, F. W., Nitrous Oxide-Oxygen Anesthesia, 974
Climate in Everyday Life, [Brooks] 1543
Clinical Medicine
Tratado de patología y clínica médicas, [Gallart Monés] 1455
Cohn, A. E., and Lingg, C., The Burden of Diseases in the United States, 414
Cook, E. F., and Martin, E. W., Remington's Practice of Pharmacy, 1361
Cooley, C. H., Social Aspects of Illness, 1362
Coope, R., reviser, Wheeler and Jack's Handbook of Medicine, 74
Cornell Conferences on Therapy, Volume IV, [Gold] 688
Craig, C. F., Clinical Parasitology, 414
Criminals
My Six Convicts: Psychologist's Three Years in Fort Leavenworth, [Wilson] 975
Cyclopedia: See Encyclopedia
Davidoff, L. M., and Dyke, C. G., The Normal Encephalogram, 976
Davidoff, L. M., and Epstein, B. S., The Abnormal Pneumoencephalogram, 976
Davis, M., Facts about Menopause, 507
DeLorme, T. L., and Watkins, A. L., Progressive Resistance Exercise: Technic and Medical Application, 606
Dentistry
Oral Pathology, [Thoma] 74
Dermatology
Sesiones dermatológicas en homenaje al profesor Luis E. Pierini, 505
Diabetes Insipidus, [Blotner] 764
Diabetes Mellitus
Diabetes Guide Book for the Physician, 606
Diarrhea
Diarreas por deficiencia de la nutrición, [Milanés Alvarez], 975
Diagnosis: See also Clinical Medicine
Introduction to Universal Serologic Reaction in Health and Disease, [Kahn] 1360
Diehl, H. S., and Boynton, R. E., Personal Health and Community Hygiene, 1362
Diet: See also Food; Nutrition; Vitamins
Low Fat, Low Cholesterol Diet: What to Eat and How to Prepare It, [Robbin & others] 975
Disease: See also Diagnosis: Pathology; Therapeutics
Burden of Diseases in the United States, [Cohn & Lingg] 414
Health and Disease in the Tropics, [Wilcocks] 295
Social Aspects of Illness, [Cooley] 1362
Dispensatory of the United States of America: 1950 Edition, [Osol & others] 220
Dixon, W. J., and Massey, F. J., Introduction to Statistical Analysis, 1361
Doctors: See Physicians
Döderlein, A., Leitfaden für den geburtshilflichen Operationskurs, 294
Doerr, R., and Hallauer, C., editors, Handbuch der Virusforschung, 687
Dollard, J., and Miller, N. E., Personality and Psychotherapy: An Analysis in Terms of Learning, Thinking, and Culture, 506
Drugs: See Pharmacy
Education: See also Schools, Medical
Education of Nursing Technicians, [Montag] 412
Ehrlich, Paul
Paul Ehrlich, [Marquardt] 73
Elgood, C., Medical History of Persia and the Eastern Caliphate from the Earliest Times Until the Year A. D. 1932, 1454
Ellis, A., Folklore of Sex, 507
Elsevier's Encyclopaedia of Organic Chemistry, [Radt] 74; 295
Embryology
Chemical Embryology, [Brachet] 296
Emergencies in Medical Practice, [Birch] 220
Encyclopedia
Elsevier's Encyclopaedia of Organic Chemistry, [Radt] 74; 295
Encyclopedia of Chemical Technology, [Kirk & Othmer] 295
Physicians and Nurses Concise Medical Encyclopedia, errors in review, [Kupper] 865—C
Endocrinology
Urologische Endokrinologie, [Chwalla] 505
Enzymes
Advances in Enzymology and Related Subjects of Biochemistry, [Nord] 1543
Enzymes: Chemistry and Mechanism of Action, [Sumner & Myrbäck] 1542
Kurzes Lehrbuch der Enzymologie, [Bersin] 1618
Exercises
Progressive Resistance Exercise: Technic and Medical Application, [DeLorme & Watkins] 606
Eyes: See Ophthalmology
Feinberg, S. M., Allergy: Facts and Fancies, 1454
Ferments: See Enzymes
Findlay, G. M., Recent Advances in Chemotherapy, Volume II (Malaria), 293
First Aid
Illustrations of Bandaging and First-Aid, [Oakes] 296
Fluhmann, C. F., Medical Treatment in Obstetrics and Gynecology, 686
Flynn, J. E., editor, Blood Clotting and Allied Problems: Transactions of Third Conference, 1950, New York, 606
Folklore of Sex, [Ellis] 507
Food: See also Diet; Nutrition; Vitamins
Amino Acid Composition of Proteins and Foods, [Block & Bolling] 507
Ford, C. S., and Beach, F. A., Patterns of Sexual Behavior, 1543
Frantz, V. K., and Harvey, H. D., Introduction to Surgery, 295
Freeman, W., and Watts, J. W., Psychosurgery in the Treatment of Mental Disorders and Intractable Pain, 974
Gallart Monés, F., Tratado de patología y clínica médicas, 1455
Gallie, W. E.
Essays in Surgery Presented to Dr. Gallie on His Retirement from University of Toronto, 72
Galtier, M., Chirurgie esthétique nasale, 506
Gastroscopy: Endoscopic Study of Gastric Pathology [Schindler] 411
Genitals
Malignant Disease of Female Genital Tract, [Way] 763
Geriatrics: See Old Age
Germany
Health and Human Relations in Germany, 688
Giles, R., Begin Now—to Enjoy Tomorrow, 1618
Gold, H., editor, Cornell Conferences on Therapy, Volume IV, 688
Goldberger, E., Heart Disease: Its Diagnosis and Treatment, 876
Goodrich, Annie W.
Militant Angel, [Koch] 505
Goodrich, F. W., Natural Childbirth: Manual for Expectant Parents, 414
Gray, D. E., and Martens, J. H., Radiation Monitoring in Atomic Defense, 74
Gray, J. S., Pulmonary Ventilation and Its Physiological Regulation, 413
Grollman, A., Pharmacology and Therapeutics, 296
Gynecology
Facts About Menopause, [Davis] 507
Grundlagen der Gynäkologie, [Martius] 296
La stérilité involontaire, [Palmer] 294
Medical Treatment in Obstetrics and Gynecology, [Fluhmann] 686
Tell Me, Doctor: Modern Woman's Medical Guide, [Safford] 296
Hall, V. E., editor, Annual Review of Physiology, Volume XIII, 1086
Hallman, L., Klinische Chemie und Mikroskopie, 687
Ham, T. H., editor, Syllabus of Laboratory Examinations in Clinical Diagnosis, 296
Hammond, J., and others, editors, Toxemias of Pregnancy: Human and Veterinary, 414
Harms, E., editor, Handbook of Child Guidance, 505
Head
Use of Pedicle Flaps of Skin in Plastic Surgery of the Head and Neck, [New & Erich] 764
Health: See also Hygiene: Sanitation
Check: Community Health Educator's Compendium of Knowledge, [Turner] 413
Developing Democratic Human Relations Through Health Education, Physical Education and Recreation, 1618
Health and Disease in the Tropics, [Wilcocks] 295
Health and Human Relations in Germany, 688
Organized Health Services in a Rural County, [Roemer & Wilson] 876
Personal Health and Community Hygiene, [Diehl & Boynton] 1362
Personnel Administration in Public Health Nursing, [Brody] 876
Public Health Engineering, [Phelps] 72
Heart: See also Cardiovascular System
Clinical Heart Disease, [Levine] 1360
Congenital Heart Disease, [Brown] 688
Diseases of the Heart and Circulation, [Wood] 1086
Heart Disease: Its Diagnosis and Treatment, [Goldberger] 876
Hemodynamics in Failure of Circulation, [Youmans & Huckins] 687
Hematology: See Blood
Heredity
Principles of Heredity, [Snyder] 505
Hilton, J., Rest and Pain, 1085
History of Medicine: See Medical History
Höring, F. O., Exotische Krankheiten und Krankheitsverläufe, 74
Hoff, F., Klinische Physiologie und Pathologie, 413
Holzer, W., editor, Therapie der Nerven- und Geisteskrankheiten, 1174
Honey
Honig und Trockenmilch: Biochemie und therapeutische Bedeutung, [Spöttel] 294
Hopkins, E. S., and Elder, F. B., Practice of Sanitation, 412
Houssay, B. A., and others, Human Physiology, 976
Hryntschak, T., Die suprapubische Prostatektomie mit primären Blasenverschluss nach eigener Methode, 687
Husler, J., Lust-Pfaundler Krankheiten des Kindesalters, 764

Book Reviews—Continued
Hygiene: See also Health: Sanitation
Personal Health and Community Hygiene, [Diehl & Boynton] 1362
Hyman, H. T., Progress Volume: Modern Developments in Therapeutics, 220
Illness: See Disease
India
Surgeons Two and a Barber: Being Some Account of Life and Work of Indian Medical Service (1600-1947), [McDonald] 73
Industry
Pneumoconiosis: Beryllium, Bauxite Fumes, Compensation, Sixth Saranac Symposium, 1947, [Vorwald] 411
Toxicology of Uranium: Survey and Collected Papers, [Tannenbaum] 1542
Infants: See also Children; Pediatrics
El lactante vomitador (visto por el cirujano), [Roviralta] 1362
Problems of Infancy and Childhood: Transactions of Fourth Conference, March 6-7, 1950, New York, N. Y., [Senn] 1360
Injuries: See Trauma
Internal Medicine
Lehrbuch der inneren Medizin, Band II, [Broglie & Dennig] 294
Taschenbuch der inneren Medizin, [Seitz] 606
Jaramillo-Arango, J., Conquest of Malaria, 605
Jenkins, G. L., and others, Scoville's The Art of Compounding, 764
Kahn, R. L., Introduction to Universal Serologic Reaction in Health and Disease, 1359
Kampmeier, R. H., Physical Examination in Health and Disease, 411
Keys, A., and others, Biology of Human Starvation, 219
Kidneys
Kidney: Structure and Function in Health and Disease, [Smith] 1360
King, E. S. J., and others, editors, Studies in Pathology Presented to Peter MacCallum, 686
Kirk, R. E., and Othmer, D. F., Encyclopedia of Chemical Technology, 295
Knaysi, G., Elements of Bacterial Cytology, 976
Koch, H. B., Militant Angel, 505
Kremers, E., and Urdang, G., History of Pharmacy: A Guide and a Survey, 877
Kupper, W. H., Physicians and Nurses Concise Medical Encyclopedia, errors in review, 865—C
Labor: See Obstetrics
Laboratory
Syllabus of Laboratory Examinations in Clinical Diagnosis, [Ham] 296
Larsell, O., Anatomy of the Nervous System, 413
Lepper, H. A., and Fisher, H. J., editors, Official Methods of Analysis of the Association of Official Agricultural Chemists, 414
Levine, S. A., Clinical Heart Disease, 1360
Life
Man Is a Microcosm, [Butler] 1455
Lind, James
Founder of Nautical Medicine, [Roddis] 73
Lorand, S., Clinical Studies in Psychoanalysis, 296
Lungs
Pulmonary Ventilation and Its Physiological Regulation, [Gray] 413
Lust-Pfaundler Krankheiten des Kindesalters, [Husler] 764
MacCallum, Peter
Studies in Pathology Presented to Peter MacCallum, [King & others] 686
McGregor, A. L., Synopsis of Surgical Anatomy, 293
Malaria
Conquest of Malaria, [Jaramillo-Arango] 605
Recent Advances in Chemotherapy, [Findlay] 293
Man Is a Microcosm, [Butler] 1455
Marquardt, M., Paul Ehrlich, 73
Martius, H., Grundlagen der Gynäkologie, 296
Medical Annual: See Yearbook
Medical History
James Lind: Founder of Nautical Medicine, [Roddis] 73
Medical History of Persia and the Eastern Caliphate, [Elgood] 1454
Paracelsus: Magic Into Science, [Pachter] 877
Rest and Pain, [Hilton] 1085
Medical Schools: See Schools, Medical
Medical Statistics: See Statistics; Vital Statistics
Medicinal Chemistry, [Suter] 1543
Medicine: See also Clinical Medicine; Internal Medicine; Medical History; Physicians; Surgeons; Surgery
Emergencies in Medical Practice, [Birch] 220
Medicine of the Year: Third Issue, 1951, [Youmans] 1454
Progress Volume: Modern Development in Therapeutics . . ., [Hyman], 220
Textbook of the Practice of Medicine, [Price] 764
Wheeler and Jack's Handbook of Medicine, [Coope] 74
Menopause
Facts About Menopause, [Davis] 507
Mental Disease
Psychosurgery in the Treatment of Mental Disorders and Intractable Pain, [Freeman & Watts] 974
Microbiology: See also Bacteriology; Viruses
Virus and Rickettsial Diseases, [Bedson & others] 414
Microscopy
Klinische Chemie und Mikroskopie, [Hallmann] 687
Midwifery: See Obstetrics
Milanés Alvarez, F., Diarreas por deficiencia de la nutrición, 975
Militant Angel (Annie W. Goodrich), [Koch] 505
Milk
Honig und Trockenmilch, [Spöttel] 294
Montag, M. L., Education of Nursing Technicians, 412
Moore, M., Illegitimate Sonnets, 412
Moorman, L. J., Pioneer Doctor, 1270
Most, H., editor, Parasitic Infection in Man, 413
Mouth
Oral Pathology, [Thoma] 74
My Six Convicts, [Wilson] 975
Nash, J. B., Moench, F. J., and Saurborn, J. B., Physical Education: Organization and Administration, 1362
Naval Medicine
James Lind: Founder of Nautical Medicine, [Roddis] 73
Neck
Use of Pedicle Flaps of Skin in Plastic Surgery of the Head and Neck, [New & Erich] 764
Nesbit, R. M., "Your Prostate Gland": Letters from a Surgeon to His Father, 73
Neurology: See also Brain
Anatomy of Nervous System, [Larsell] 413
Genetic Neurology, [Weiss] 219
Medical Neuropathology, [Scheinker] 1270
Neurology and Psychiatry in General Practice, [Viets] 686
Therapie der Nerven- und Geisteskrankheiten, [Holzer] 1174
Neurosurgery
Neurosurgical Treatment of Traumatic Paraplegia, [Pool] 876
Plasma Clot Suture of Peripheral Nerves and Nerve Roots, [Tarlov] 219
Psychosurgery in Treatment of Mental Disorders and Intractable Pain, [Freeman & Watts] 974
New, G. B., and Erich, J. B., Use of Pedicle Flaps of Skin in Plastic Surgery of the Head and Neck, 764
New England Female Medical College
History of New England Female Medical College, 1848-1874, [Waite] 686
New York Academy of Medicine
Parasitic Infections in Man, [Most] 413
Nightingale, Florence
Florence Nightingale, [Seymer] 605
Florence Nightingale 1820-1910, [Woodham-Smith] 605
Nord, F. F., editor, Advances in Enzymology and Related Subjects of Biochemistry, 1543
Nose: See Otorhinolaryngology
Nurses and Nursing
Education of Nursing Technicians, [Montag] 412
Florence Nightingale, [Seymer] 605
Florence Nightingale 1820-1910, [Woodham-Smith] 605
History of Nursing, [Sellew & Nuesse] 1086
Militant Angel (Annie W. Goodrich) [Koch] 505
Personal Health and Community Hygiene, [Diehl & Boynton] 1362
Personnel Administration in Public Health Nursing, [Brody] 876
Physicians and Nurses Concise Medical Encyclopedia, errors in review, [Kupper] 865—C
Nutrition: See also Diet; Food; Vitamins
Diarreas por deficiencia de la nutrición, [Milanés Alvarez] 975
Essentials of Nutrition, [Sherman & Lanford] 1543
Nutrition and Alcoholism, [Williams] 1618
Oakes, L., compiler, Illustrations of Bandaging and First-Aid, 296
Obstetrics
Leitfaden für den geburtshilflichen Operationskurs, [Döderlein] 294
Medical Treatment in Obstetrics and Gynecology, [Fluhmann] 686
Natural Childbirth: Manual for Expectant Parents, [Goodrich] 414
Occupational Medicine: See Industry
Ogilvie, H., and Thomson, W. A. R., editors, Pain and Its Problems, 1543
Old Age
Begin Now—to Enjoy Tomorrow, [Giles] 1618
Social and Biological Challenge of Our Aging Population, 294
Trends in Gerontology, [Shock] 688
Operations: See Surgery
Ophthalmology
Eye Manifestations of Internal Diseases (Medical Ophthalmology), [Tassman] 605
Ophthalmic Operations, [Philps] 220
Physiology of the Eye: Clinical Application, [Adler & others] 220
Orthopedics
Kurgefasstes Lehrbuch der orthopädischen Krankheiten, [Pitzen] 506
Osol, A., and others, Dispensatory of the United States of America: 1950 edition, 220
Osteology
Lehrbuch der Röntgendiagnostik, [Schinz & others] 1542
Roentgenologic Diagnosis of Diseases of Bones, [Pugh] 1174
Otorhinolaryngology
Chirurgie esthétique nasale, [Galtier] 506
Your Sinus Troubles and Treatments, [Brodnitz]
Pachter, H. M., Paracelsus: Magic Into Science, 877
Pain
Pain and Its Problems, [Ogilvie & Thomson] 1543
Rest and Pain, [Hilton] 1085
Palmer, R., La Stérilité involontaire, 294
Pancreas
External Secretion of the Pancreas, [Thomas] 1455
Paracelsus: Magic Into Science, [Pachter] 877
Paraplegia
Neurosurgical Treatment of Traumatic Paraplegia, [Pool] 876
Parasitology
Clinical Parasitology, [Craig & others] 414
Parasitic Infections in Man, [Most] 413
Soil and Freshwater Nematodes: Monograph, [Goodey] 1085
Pathology: See also Disease
Gastroscopy: Encoscopic Study of Gastric Pathology, [Schindler] 411
Klinische Physiologie und Pathologie, [Hoff] 413
Oral Pathology, [Thoma] 74
Studies in Pathology Presented to Peter MacCallum, [King & others] 686
Tratado de patología y clínica médicas, [Gallart Monés] 1455
Patterns of Sexual Behavior, [Ford & Beach] 1543
Peck, S. R., Atlas of Human Anatomy for the Artist, 1455
Pediatrics: See also Children; Infants
Lust-Pfaundler Krankheiten des Kindesalters, [Husler] 764
Persia
Medical History of Persia and the Eastern Caliphate, [Elgood] 1454
Personality
Perception: Approach to Personality, [Blake & Ramsey] 1361
Personality and Psychotherapy: Analysis in Terms of Learning, Thinking, and Culture, [Dollard & Miller] 506
Problems of Infancy and Childhood: Transactions of the Fourth Conference, March 6-7, 1950, New York, N. Y., [Senn] 1360
Symposium on the Healthy Personality, [Senn] 506
Pharmacy: See also Chemistry
Dispensatory of the United States of America: 1950 edition, 220
History of Pharmacy: Guide and Survey, [Kremers & Urdang] 877
Pharmacognosy: Study of Natural Drug Substances and Certain Allied Products, [Pratt & Youngken] 1618
Pharmacology and Therapeutics, [Grollman] 296
Remington's Practice of Pharmacy, [Cook & Martin] 1361
Scoville's The Art of Compounding, [Jenkins & others] 764
Phelps, E. B., Public Health Engineering, 72
Philps, S., Ophthalmic Operations, 220
Physical Education: Organization and Administration, [Nash & others] 1362
Physical Examination in Health and Disease, [Kampmeier] 411
Physical Medicine
Progressive Resistance Exercise: Technic and Medical Application, [DeLorme & Watkins] 606
Physicians: See also Medicine; Surgeons; Surgery
biographies: James Lind: Founder of Nautical Medicine, [Roddis] 73
biographies: Paracelsus: Magic Into Science, [Pachter] 877
biographies: Paul Ehrlich, [Marquardt] 73
biographies: Pioneer Doctor, [Moorman] 1270
Doctor: His Career, His Business, His Human Relations, [Truman] 877
Essays in Surgery Presented to Dr. W. E. Gallie, 72
Physicians and Nurses Concise Medical Encyclopedia, errors in review, [Kupper] 865—C
Physiology: See also Anatomy
Annual Review of Physiology, [Hall] 1086
Human Physiology, [Houssay] 976
Klinische Physiologie und Pathologie, [Hoff] 413

Book Reviews—Continued
Physiology—*Continued*
Physiology of the Eye: Clinical Application, [Adler & others] 220
Pulmonary Ventilation and Its Physiological Regulation, [Gray] 413
Textbook of Physiology and Biochemistry, [Bell & others] 1455
Pierini, Luis E.
Sesiones dermatolóligac en homenaje al profesor Luis E. Perini, 505
Pioneer Doctor, [Moorman] 1270
Pitzen, P., Kurzgefasstes Lehrbuch der orthopädischen Krankheiten, 506
Pneumonoconiosis
Pneumoconiosis: Beryllium, Bauxite Fumes, Compensation. Sixth Saranac Symposium, 1947, [Vorwald] 411
Poetry
Illegitimate Sonnets, [Moore] 412
Poisoning: See Toxicology
Poliomyelitis
Die Chirurgie der Poliomyelitis, [Sjövall] 1270
Pool, J. L., Neurosurgical Treatment of Traumatic Paraplegia, 876
Pratt, R., and Youngken, H. W., Pharmacognosy: Study of Natural Drug Substances and Certain Allied Products, 1618
Pregnancy
Toxemias of Pregnancy: Human and Veterinary, [Hammond & others] 414
Price, F. W., editor, Textbook of Practice of Medicine, 764
Prostate
Die suprapubische Prostatektomie mit primären Blasenverschluss nach eigener Methode, [Hryntschak] 687
"Your Prostate Gland": Letters from a Surgeon to His Father, [Nesbit] 73
Proteins
Amino Acid Composition of Proteins and Foods, [Block & Bolling] 507
Psychiatry: See also Mental Disease
Bases of Human Behavior: Biologic Approach to Psychiatry, [Saul] 507
Neurology and Psychiatry in General Practice, [Viets] 686
Therapie der Nerven- und Geisteskrankheiten, [Holzer] 1174
Psychoanalysis
Clinical Studies in Psychoanalysis, [Lorand] 296
Psychology
Adler's Place in Psychology, [Way] 220
Medical Psychology: Basis for Psychiatry and Clinical Psychology, [Yacorzynski] 686
My Six Convicts: A Psychologist's Three Years in Fort Leavenworth, [Wilson] 975
Perception: Approach to Personality, [Blake & Ramsey] 1361
Training in Clinical Psychology, [Raimy] 74
Psychotherapy
General Psychotherapy: Dynamics and Procedures, [Cameron] 974
Personality and Psychotherapy: Analysis in Terms of Learning, Thinking, and Culture, [Dollard & Miller] 506
Public Health: See Health
Pugh, D. P., Roentgenologic Diagnosis of Diseases of Bones, 1174
Quick, A. J., Physiology and Pathology of Hemostasis, 1270
Race, R. R., and Sanger, R., Blood Groups in Man, 877
Radiation Monitoring in Atomic Defense, [Gray & Martens] 74
Radiology: See Roentgenology
Radt, F., editor, Elsevier's Encyclopedia of Organic Chemistry, 74; 295
Raimy, V. C., compiler, editor, Training in Clinical Psychology, 74
Relaxation
Das autogene Training (konzentrative Selbstentspannung), [Schultz] 412
Remington's Practice of Pharmacy, [Cook & Martin] 1361
Respiration
Pulmonary Ventilation and Its Physiological Regulation, [Gray] 413
Rest and Pain, [Hilton] 1085
Retire and Be Happy, [Salomon] 1086
Rice, Dietary Controls and Blood Pressure with Menus and Recipes, [Seymour] 1618
Rickettsia
Virus and Rickettsial Diseases, [Bedson & others] 414
Robbin, E. V., and others, The Low Fat, Low Cholesterol Diet: What to Eat and How to Prepare It, 975
Roddis, L. H., James Lind: Founder of Nautical Medicine, 73
Roemer, M. I., and Wilson, E. A., Organized Health Services in a Rural County, 876
Roentgenology
Abnormal Pneumoencephalogram, [Davidoff & Epstein] 976
Die klinische Röntgendiagnostik der inneren Erkrankungen, [Assmann] 1455
Fundamentals of Clinical Fluoroscopy with Essentials of Roentgen Interpretation, [Storch] 1174
Roentgenology—*Continued*
Lehrbuch der Röntgendagnostik, [Schinz & others] 1542
Normal Encephalogram, [Davidoff & Dyke] 976
Oral Pathology: Histologic, Roentgenological and Clinical Study, [Thoma] 74
Roentgenologic Diagnosis of Diseases of Bones, [Pugh] 1174
Roviralta, E., El lactante vomitador (visto por el cirujano), 1362
Rural Communities
Organized Health Services in a Rural County, [Roemer & Wilson] 876
Safford, H. B., Tell Me, Doctor: The Modern Woman's Medical Guide, 296
Salleras, V., and Brull, R., Tratamiento quirúrgico de las varices esenciales, 1362
Salomon, I., Retire and Be Happy, 1086
Sanitation
Practice of Sanitation, [Hopkins & Elder] 412
Saranac Symposium
Pneumoconiosis: Beryllium, Bauxite Fumes, Compensation. Sixth Saranac Symposium, 1947, [Vorwald] 411
Saul, L. J., Bases of Human Behavior: Biologic Approach to Psychiatry, 507
Scheinker, I. M., Medical Neuropathology, 1270
Schindler, R., Gastroscopy: Endoscopic Study of Gastric Pathology, 411
Schinz, H. R., and others, Lehrbuch der Röntgendagnostik, 1542
Schools, Medical
History of New England Female Medical College, 1848-1874, [Waite] 686
Schultz, J. H., Das autogene Training (konzentrative Selbstentspannung): Versuch einer klinisch-praktischen Darstellung, 412
Schwarzenbach, G., Allgemeine und anorganische Chemie, 975
Scoville's The Art of Compounding, [Jenkins & others] 764
Scitz, W., Taschenbuch der inneren Medizin, 606
Sellew, G., and Nuesse, C. J., History of Nursing, 1086
Senn, M. J. E., editor, Problems of Infancy and Childhood, 1360
Symposium on the Healthy Personality, 506
Serodiagnosis
Introduction to Universal Serologic Reaction in Health and Disease, [Kahn] 1360
Sex
Folklore of Sex, [Ellis] 507
Patterns of Sexual Behavior, [Ford & Beach] 1543
Seymer, L. R., Florence Nightingale, 605
Seymour, F. I., Rice, Dietary Controls and Blood Pressure with Menus and Recipes, 1618
Shattuck, G. C., Diseases of the Tropics, 295
Sherman, H. C., and Lanford, C. S., Essentials of Nutrition, 1543
Shock, N. W., Trends in Gerontology, 688
Siebert, W. W., Klinische Haematologie: Ein Grundriss für Studierende und Arzte, 605
Sinuses, Nasal: See Otorhinolaryngology
Sjövall, H., Die Chirurgie der Poliomyelitis, 1270
Skin: See also Dermatology
Use of Pedicle Flaps of Skin in Plastic Surgery of the Head and Neck, [New & Erich] 764
Smith, H. W., Kidney: Structure and Function in Health and Disease, 1360
Smith, K. M., Introduction to Study of Viruses, 605
Snyder, L. H., Principles of Heredity, 505
Social and Biological Challenge of Our Aging Population, 294
Social Aspects of Illness, [Cooley] 1362
Soil and Freshwater Nematodes: Monograph, [Goodey] 1085
Sonnets: See Poetry
Speech
Chewing Approach in Speech and Voice Therapy, [Weiss & Beebe] 293
Spöttel, W., Honig und Trockenmilch: Biochemie und therapeutische Bedeutung, 294
Sprue
Diarreas por deficiencia de la nutrición, [Milanés Alvarez] 975
Starvation
Biology of Human Starvation, [Keys & others] 219
Statistics: See also Vital Statistics
Introduction to Statistical Analysis, [Dixon & Massey] 1361
Sterility
La stérilité involontaire, [Palmer] 294
Stolz, R., and Stolz, L. M., Somatic Development of Adolescent Boys, 1362
Stomach
Gastroscopy: Endoscopic Study of Gastric Pathology, [Schindler] 411
Storch, C. B., Fundamentals of Clinical Fluoroscopy with Essentials of Roentgen Interpretation, 1174
Strode, G. K., editor, Yellow Fever, 1085
Sumner, J. B., and Myrbäck, K., editors, Enzymes: Chemistry and Mechanism of Action, 1542
Surgeons
Royal College of Surgeons: Rest and Pain, [Hilton] 1085
Surgeons Twice and a Barber, Indian Medical Service, (1600-1947), [McDonald] 73
Surgery: See also Neurosurgery
Chirurgie esthétique nasale, [Galtier] 506
Die Chirurgie der Poliomyelitis, [Sjövall] 1270
Die suprapubische Prostatektomie mit primären Blasenverschluss nach eigener Methode, [Hryntschalk] 687
Essays in Surgery Presented to Dr. W. E. Gallie, 72
Introduction to Surgery, [Frantz & Harvey] 295
Ophthalmic Operations, [Philps] 220
Student's Handbook of Surgical Operations, [Treves] 688
Surgical Forum: American College of Surgeons, 1950, 686
Synopsis of Surgical Anatomy, [McGregor] 293
Tratamiento quirúrgico de las varices esenciales, [Salleras & Brull] 1362
Use of Pedicle Flaps of Skin in Plastic Surgery of the Head and Neck, [New & Erich] 764
"Your Prostate Gland": Letters from a Surgeon to His Father, [Nesbit] 73
Suter, C. M., editor, Medicinal Chemistry, 1543
Tannenbaum, A., editor, Toxicology of Uranium: Survey and Collected Papers, 1542
Tarlov, I. M., Plasma Clot Suture of Peripheral Nerves and Nerve Roots, 219
Tassman, I. S., Eye Manifestations of Internal Diseases (Medical Ophthalmology), 605
Teeth: See Dentistry
Tell Me, Doctor: The Modern Woman's Medical Guide, [Safford] 296
Therapeutics: See also Pharmacy
Cornell Conferences on Therapy, Volume IV, [Gold] 688
1950 Year Book of Drug Therapy (October, 1949-September, 1950), [Beckman] 507
Pharmacology and Therapeutics, [Grollman] 296
Progress Volume: Modern Developments in Therapeutics, [Hyman] 220
Thoma, K. H., Oral Pathology, 74
Thomas, J. E., External Secretion of the Pancreas, 1455
Toxicology of Uranium: Survey and Collected Papers, 1542
Trauma
Neurosurgical Treatment of Traumatic Paraplegia, [Pool] 876
Treatment. See Therapeutics
Treloar, A. E., Biometric Analysis, 1270
Treves, F., Student's Handbook of Surgical Operations, 688
Tropical Medicine
Diseases of the Tropics, [Shattuck] 295
Exotische Krankheiten und Krankheitsverläufe, [Höring] 74
Health and Disease in the Tropics, [Wilcocks] 295
Truman, S. R., The Doctor: His Career, His Business, His Human Relations, 877
Tuberculosis
Die Tuberkulose: Ihre Erkennung und Behandlung, [Arnold] 606
Turner, C. E., Check: Community Health Educator's Compendium of Knowledge, 413
Uranium
Toxicology of Uranium: Survey and Collected Papers, [Tannenbaum] 1542
Urology
Kidney: Structure and Function in Health and Disease, [Smith] 1360
Urologische Endokrinologie, [Chwalla] 505
Varicose Veins
Tratamiento quirúrgico de las varices esenciales, [Salleras & Brull] 1362
Viets, H. R., editor, Neurology and Psychiatry in General Practice, 686
Viruses
Handbuch der Virusforschung, [Dorr] 687
Introduction to Study of Viruses, [Smith] 605
Virus and Rickettsial Diseases, [Bedson & others] 414
Vision: See Ophthalmology
Vital Statistics
Burden of Diseases in the United States, [Cohn & Lingg] 414
Vitamins
Methods of Vitamin Assay, 976
Voice
Chewing Approach in Speech and Voice Therapy, [Weiss & Beebe] 293
Vomiting
El lactante vomitador (visto por el cirujano), [Roviralta] 1362
Vorwald, A. J., editor, Pneumoconiosis: Beryllium, Bauxite Fumes, Compensation. Sixth Saranac Symposium, 1947, 411
Voss, H., and Herrlinger, R., Taschenbuch der Anatomie, 507

Book Reviews—Continued
Waite, F. C., History of New England Female Medical College, 1848-1874, 686
Watch out for the Weather, [Berke & Wilson] 763
Way, L., Adler's Place in Psychology, 220
Way, S., Malignant Disease of the Female Genital Tract, 763
Weather
Watch out for the Weather, [Berke & Wilson] 763
Weiss, D. A., and Beebe, H. H., editors, Chewing Approach in Speech and Voice Therapy, 293
Weiss, P., editor, Genetic Neurology, 219
Wepman, J. H., Recovery from Aphasia, 763
Wheeler and Jack's Handbook of Medicine, [Coope] 74
Wilcocks, C., Health and Disease in the Tropics, 295
Williams, R. J., Nutrition and Alcoholism, 1618
Wilson, D. P., My Six Convicts: A Psychologist's Three Years in Fort Leavenworth, 975
Wood, P., Diseases of the Heart and Circulation, 1086
Woodham-Smith, C., Florence Nightingale 1820-1910, 605
Yacorzynski, G. K., Medical Psychology: Basis for Psychiatry and Clinical Psychology, 686
Yearbook
Annual Review of Physiology, [Hall] 1086
Developing Democratic Human Relations Through Health Education, Physical Education and Recreation, 1618
Medicine of the Year: Third Issue, 1951, [Youmans] 1454
1950 Year Book of Drug Therapy (October, 1949-September, 1950), [Beckman] 507
Yellow Fever, [Strode] 1085
Youmans, J. B., Medicine of the Year: Third Issue, 1951, 1454
Youmans, W. B., and Huckins, A. R., Hemodynamics in Failure of Circulation, 687
Your Sinus Troubles and Treatments, [Brodnitz] 763
Zweifach, B. W., and Shorr, E., editors, Factors Regulating Blood Pressure: Transactions of the Fourth Conference, February 23-24, 1950, New York, N. Y., 1362

C

C-3968
hormonal cerebral vasopressor substance, 1326—E
CCK 170
treatment of peripheral vascular disease, [Popkin] 1344—ab
Ch Factor: See Liver preparations
CACHEXIA: See Pituitary
Bronze: See Hemochromatosis
CAFERGOT: See Ergotamine with Caffeine
CALCIFEROL: See Vitamins D_2
CALCIFICATION: See Myositis ossificans
CALCIUM
demineralization of bone and osteoporosis, 765
demineralization of carpal bones, 766
metabolism, bone cysts, 690
CALCULI: See Gallbladder; Kidneys; Urinary System
CALIFORNIA: See also San Francisco
Medical Association, (opposed cash sickness disability law) 847
CALORIES
fat emulsions high in, given intravenously, [Shaffroff] 499—ab
CAMPS
children's, state board regulates, Minnesota, 1139
Diabetic: See Diabetes Mellitus
grant for city day camps, New York, 485
CANADA
medical school graduates, examined for licensure, 1950, *344
CANCER: See also under name of organ and region affected
American Cancer Society, (plans more clinics) 569; (fellowship award) 1519
A.M.A. Subcommittee on Steroids and Cancer, 655—E
Black-Stevenson Cancer Foundation awards funds, 741
cells, cytology center, Florida, 1428
Chorionic: See Chorionic Carcinoma
clinics, American Cancer Society plans more clinics, 569
clinics, Hoxsey clinic investigated, 736
clinic, new, Illinois, 567
control, detection program, Pa., 948
control program (regional), fundamentals, [Ryan] *1386
control, Westchester County Society awarded 1951 Cancer Crusade Citation, N. Y. 738
Cytology: See Cancer cells; Cancer diagnosis
diagnosis, course in exfoliative cytology by Dr. Papanicolaou, (correction) 1055
diagnosis, cytologic in gastric cancer, [Seybolt] 1158—ab
diagnosis, detection of pelvic cancer; biopsy-smear study, [Jones] *1197
diagnosis (differential) from cells obtained by stomach aspiration, [Porter] 756—ab
CANCER—Continued
diagnosis, hemorrhagic diathesis as symptom, [Zeldenrust] 1168—ab
diagnosis, pentolysis in, [Menkès] 1266—ab
diagnosis, smear of urinary sediment, [Harrison] 288—ab
diagnosis, thermal coagulation tests of serum proteins, [Tzanck] 1268—ab
Epithelioma: See Epithelioma
etiology, aluminum cooking utensils used in preparing foods, Council statement, 477
etiology: anterior pituitary, possible correlation, 1176
etiology, chemical carcinogenesis, 896—ab
etiology, chronic cystic fibrosis and birth control, **144:** 1602, Dec. 30, 1950; (replies) [Fitts & Hoffman; Kennedy; Greenhill] **146:** 78, May 5, 1951
etiology, estrogens cause cancer in male breast, [McClure & Higgins] *7; [McClure] 1608—C
etiology, estrogens in small doses cause cancer of breast? 222
etiology, Fowler's solution, 418
etiology, mineral oil used in collapse therapy predispose to cancer? 1366
etiology, thyroid cancer induced by H. F. Morris, 1147
etiology, unabsorbed beeswax as carcinogenic substance, 418
familial incidence of primary carcinoma of jejunum, [Pridgen & others] *797
focus, [Bang] 1358—ab
lecture series, Montana, 738
metachronous, of colon, [Rankin & Conger] *918
metastases from breast, inoperable, 416
metastases from breast to bone and testosterone therapy, [Gibert] 217—ab
metastases from rectum to penis, [Cattell & Mace] *1230
metastases to bone marrow; anemia in patients, [Shen] 500—ab
mortality, 1142
National Cancer Institute, [Connery] *578; [Heller] 1248—C
precancerous condition, breast cancer with Paget's disease, [Eisen] 870—ab
Prevention: See Cancer control
research, Comfort Crookshank award for, 1139
research, Damon Runyon Memorial Fund for, New Jersey, 1140
research, Ellen McBride Cancer Research Endowment, Mo., 205
research, federal millions for, 392
research institute and Joslin Auditorium dedicated, Mass., 567
Royal Cancer Hospital centenary, London, 1148
seminar (annual), Colo., 1516
statistics, Danish, 937
study coordinator: Dr. Stevenson appointed, Illinois 204
symposium, (Wyo.), 44; (Herrin, Ill.) 483
treatment, nitrogen mustard congener: triethylene melamine (TEM), 480—E
treatment, psychological management, [Kline & Sobin] *1547
CANDIDA Albicans Infection: See Moniliasis
CANKER SORES: See Stomatitis, aphthous
CANNED Products for Infants: See Infants, feeding
CAPILLARIES: See Telangiectasia
CAPPS Prize: See Prizes
CARBARSONE
treatment of amebiasis, [Conn] 680—ab
treatment of excess gas in intestine, 691
CARBOHYDRATES: See also Dextrose; Molasses
diet (low), high-protein, for obesity, [Billig] *1180
metabolism regulation and hypophysis, [Horst-Meyer] 1266—ab
CARBON
radioactive, in medical research, diagnosis, and therapy, (Council article), [Kelsey] *1133
CARBON DIOXIDE
Combining Power: See Blood
retention, detecting in poliomyelitis with respiratory failure, [Plum & Wolff] *442
treatment of psychoneurotics, 1273
CARBON TETRACHLORIDE
danger of inhaling, 767
CARBUNCLE: See Furunculosis
Malignant: See Anthrax
CARCINOGENESIS: See Cancer etiology
CARCINOMA: See Cancer
CARDIAC: See Heart
Muscle: See Myocardium
CARDIOLOGY: See Heart
CARDIOVASCULAR DISEASE: See also Blood Vessels disease; Heart disease
cause of maternal deaths, New York City, [Faison] *1394
complications of antabuse treatment of alcoholism, [Macklin & others] *1377
Hypertensive: See Blood Pressure, High
manifestations in acute poliomyelitis, [Weinstein] 679—ab
mortality, Norway, 212
CARDIOVASCULAR SYSTEM: See also Arteries; Blood Vessels; Heart; Vasomotor System; Veins
disorders occurring with catheterization of right side of heart, [Zimdhal] 399—ab
CARDITIS: See Heart inflammation
CARE
Unesco Book Fund Program, 857
CARIBBEAN REGION
typhus immunization advisable before trip to, 1087
CARIES: See Teeth, caries
CAROTID ARTERIES: See Arteries
CAROTID GLAND
tumors, [Lahey] 1078—ab
CAROTID SINUS
syncope, Boeck's sarcoid with complete heart block mimicking, [Simkins] *794
CARPUS: See Wrist
CARS: See Automobiles
CARTILAGE
costal chondritis, [Deane] 1356—ab
ox, in plastic surgery, [Gillies] 1448—ab
tumors of ribs and sternum, [O'Neal] 63—ab
CASE
Finding: See Tuberculosis
Records: See Medical Record Librarians
CASTRATION
in breast cancer, [Nathanson] 1263—ab
CASUALTIES: See Accidents; Korean War
CAT: See Cats
CATARACT
after thyroidectomy, [Pau] 970—ab
treatment, 768
CATHARTICS: See also Enema
Serutan, complete obstruction of esophagus from, [Hinkel] *1129
CATHETERIZATION: See Heart, catheterization
CATHETERS
intercostal, for idiopathic spontaneous pneumothorax, [Hughes & others] *244
CATIONS
exchange resin to determine gastric acidity, 260—E
exchange resins treatment of congestive cardiac failure, [Kleiber] 402—ab
CATS
scratch fever, [Greer] 1261—ab
scratches, disease due to, [Thélin] 71—ab
CATTLE
cysticercus bovis in, beef tapeworm in man, [Griffiths] 682—ab
CAUDA EQUINA
injuries, management of residuals of, [Pollock & others] *1552
CAVAL Veins: See Vena Cava
CAVITIES: See Lungs; Teeth, caries
CECUM
as substitute for bladder, [Merricks] 1534—ab
CELLOPHANE
substances used to stimulate fibrous tissue, 509
CELLOTHYL: See Methylcellulose
CELLS: See also Blood cells; Cancer; Tissues
basal cell tumors, [Wallace] 1447—ab
Chromaffin: See Pheochromocytoma
diagnose gastric lesion from cells obtained by aspiration, [Porter] 756—ab
Giant Cell Granuloma: See Granuloma
giant, cytologic smears in diagnosis of herpes and varicella, [Blank & others] *1410
inclusion bodies in warts, [Lyell] 1354—ab
L. E.: See Lupus erythematosus
morphologically identical, tissue culture to differentiate between, [Sano] 1609—ab
CEMENT
ethylene dichloride plastic cement, fatal poisoning, [Lochhead & Close] *1323
CEREAL PRODUCTS
Beech Nut cooked barley cereal, 731
Pablum, (barley; rice) 1029
CEREBRAL PALSY: See Paralysis, cerebral
CEREBROSPINAL FLUID
agreement between blood and spinal fluid serologic tests, 1545
cerebral pseudotumor or intracranial hypertension of unknown cause, [Elkins] 64—ab
hydrogen ion concentration, 1176
spontaneous cerebrospinal rhinorrhea; remission after dye injection, [Kahn] *728
CEREBROSPINAL SYPHILIS: See Neurosyphilis
CEREBRUM: See Brain
CERTIFICATION: See also Death; Prostitutes; Psychologists—
unification and control of medical certificates, Norway, 956
CERVIX Uteri: See Uterus
CESAREAN SECTION
maternal deaths associated with, New York City, [Faison] *1396; *1397
more extensive use, [Anderes] 69—ab
rule: "Once a cesarean section, always a cesarean section" always true? 690
CEVITAMIC ACID: See Acid, ascorbic
CHAPIN Medal: See Prizes
CHARACTERISTICS: See Personality
CHARPY METHOD
treatment of lupus, 299

CHEMICAL
additives in foods, (Council statement) 731
Burns: See Burns
CHEMISTRY: See also Biochemistry
A.M.A. Council on Pharmacy and Chemistry: See American Medical Association
clinical, new section on, Tenn., 486
CHEMOTHERAPY: See under specific substances as Nitrogen Mustard
CHENOPODIUM Oil: See Oil of chenopodium
CHEST: See Thorax
CHESTPIRATOR Portable Respirator, Junior Hospital Model, 108
CHICAGO
Medical School, research grants for, 1516
plan for care of premature infants, [Hess] *891
University of: See University
CHICK PEAS, Poisoning from: See Lathyrism
CHICKENPOX
cytologic smears in diagnosis, [Blank & others] *1410
CHICKENS: See also Eggs
chick embryo method to prepare smallpox vaccine, [Buddingh] 869—ab
Heinz Junior Chicken Soup, 1029
split eye in, relation to hepatitis in man, 1544
transmission of rabies, 1175
CHILDBED FEVER: See Puerperal Infection
CHILDBIRTH: See Labor; Medicolegal Abstracts at end of letter M
CHILDREN: See also Families; Infants; Maternity; Paternity; Pediatrics, under names of specific diseases as Typhoid
Adolescent: See Adolescence
A.M.A. Committee on Maternal and Child Care, 844
A.M.A. statement on child health, 835
Angry Boy (film review), 1440
behavior disorders in, 956
behavior disorders in epileptic children, [Bradley] *436
body temperatures during anesthesia in, [Bigler & McQuiston] *551
camps (day), grant for, N. Y. 485
camps, state board regulates, Minnesota, 1139
child life research, 565
Crippled: See Crippled
dwarfism in 4 year old, 691
Growth: See Growth
Hospitals for: See Hospitals, children's
leg pains in, (replies) [Fuldner; McKeever; Reich] 880; [Naish] 1614—ab
mortality rates, 662
on the road to a life worth living, 1201—ab
preparing children for pain, 925—ab
resection of vesical neck in, [Howard & Buchtel] *1202
school for boys, diarrhea epidemic in, [Ingalls & Britten] *710
school, screening for visual errors: Massachusetts test and Snellen test, 1364
tonsillectomies in, far-reaching impression on, [Barhash] *1587
UN International Children's Emergency Fund, aid ends in Greece, 857
U.S. Children's Bureau, [Lamborne] *1153
CHIROPODY: See Medicolegal Abstracts at end of letter M
CHIROPRACTORS: See also Medicolegal Abstracts at end of letter M
care proposed for veterans, [Humphrey] 280—C
examined in basic science in 1950, *372
CHLORAMPHENICOL (chloromycetin)
effect on hematological picture, [Binaghi] 875—ab
Treatment: See also Endocarditis; Gastroenteritis; Nutrition disorders; Paratyphoid; Pelvis; Typhoid; Urethritis; Whooping Cough; Yaws
treatment, parenteral, evaluation, [Moseley] 1613—ab
treatment, plus aureomycin in herpes zoster, [Carter] 1354—ab
treatment plus aureomycin in pertussis, [Buser] 1083—ab
treatment plus aureomycin in rickettsial and typhoid diseases, [Höring] 290—ab
CHLORCYCLIZINE HYDROCHLORIDE
name recognized by Council, 927
CHLORESIUM
N.N.R., (description) 34; (Rystan) 34
CHLORIDES: See Ammonium chloride; Ethyl chloride; Sodium chloride; Vinylidene chloride
CHLORINATED HYDROCARBONS
insecticides, aldrin and dieldrin poisoning, 378—E
CHLORINATED WATER
heavily, deleterious effects, 1273
*di*CHLORODIPHENYLTRICHLOROETHANE: See Chlorophenothane (DDT)
CHLOROETHYLAMINES: See Nitrogen Mustard
CHLOROMYCETIN: See Chloramphenicol
CHLOROPHENOTHANE (DDT)
emulsifiers with vegetable oil base (B-13), Brazil, 1438
in triton-xylene-water, eradication of malaria, 1599—E
turbidimetric determination of small amounts, Brazil, 1150
CHLOROPHYLL
derivatives, water-soluble, N.N.R., (description) 34; (Rystan) 34
stimulation of granulation and epithelialization, 1089
CHLOROQUINE
treatment of malaria in veterans who have served in Korea, 1523
CHLOROTHEN
treatment of Rhus dermatitis, [Hoagland & others] *612
CHOLECYSTECTOMY: See Gallbladder excision
CHOLECYSTITIS: See Gallbladder inflammation
CHOLECYTOGRAPHY: See Gallbladder roentgen study
CHOLELITHIASIS: See Gallbladder, calculi
CHOLESTEROL
esters, value in differential diagnosis of jaundice, [King & Taubenhaus] *1298
in Blood: See Blood
CHOLINE: See also Acetylcholine
experimental canine arteriosclerosis, [Davidson] 871—ab
gluconate, name recognized by Council, 927
treatment of virus hepatitis, [Kipping] 760—ab
CHOLINESTERASE
parathion poisoning in citrus spray operations, [Williams] 1444—ab
CHONDRITIS
costal, [Deane] 1356—ab
CHONDROITIN sulfate, 1327—E
CHOREA
minor, insulin therapy, [Mayerhofer] 1538—ab
minor: treatment with antibiotics, ACTH or cortisone of no value, 1271
CHORIONIC CARCINOMA
of chorold, [Kulvin] 675—ab
CHORIONIC GONADOTROPINS: See Gonadotropins
CHOROID
chorionepithelioma, [Kulvin] 675—ab
CHOROIDEREMIA
3 cases in 3 generations, [Lowe] 289—ab
CHRISTIAN-Weber Disease: See Panniculitis
CHROMAFFIN
Cell Tumor: See Pheochromocytoma
CHROMATOGRAPHY
paper, of urine in pegnancy and eclampsia, [Zilliacus] 1082—ab
CHRONICALLY ILL: See Disease, chronic
CHRYSOTHERAPY: See Gold therapy
CICATRIX
cerebral scars in children, [Klein] 1083—ab
pigmentation after lacerations, 1177
CICERISM: See Lathyrism
CIFUENTES DELATTE, L., completed examination for chair of urology, Spain, 1525
CIGARETS: See Tobacco
CINEMA: See Moving Pictures
CIRCULATION: See Blood circulation
CIRCULATORY Disease: See Cardiovascular Disease
CIRRHOSIS: See Liver
CITATIONS: See Prizes
Military: See Korean War, Heroes; World War II, Heroes
CITIZENS
citizenship, a physician's obligation, [Irons] *1023
CIVILIAN DEFENSE
A.M.A. Council on National Emergency Medical Service, (series of articles) [Lyon] *465
Civilian Control of Medical and Health Affairs, A.M.A. resolution on, 939
Conference, meeting approved by A.M.A. Board, 1328
picture added to A.M.A. Film Library, 565
radiological aspects, Council article, [Lyon] *465
training for, Illinois, 41
U. S. Civil Defense Administration appoints Col. Wilson assistant administrator, 275
CLEANER: See Vacuum Cleaner
CLEFT Palate: See Palate
CLIMACTERIC: See also Menopause
hot flashes in man, 879
CLINE, JOHN W.
portrait, 512
President's Address, *609
President's Page, (June) 822; (July) 1238; (August) 1600
San Francisco Society honors, 383
CLINICAL
Center for Medical Research, of U.S.P.H.S. (picture), 668
Laboratories: See Laboratories
Laboratory Technicians: See Technologists
Thermometers: See Thermometers
CLINICS: See also Alcoholism; Cancer; Radiology; Venereal Diseases
American Association of Medical Clinics, Dr. E. P. Jordan director, 1055
floating clinics (3) of Alaska Department of Health, 740
new, for Denver, 855
summer, at Children's Hospital, Denver, 567
tele-clinics, Wyeth, Inc., 661
CLOSTRIDIUM
botulinum in fatal wound infection, [Davis & others] *646
welchi: See Gangrene, gas
CLOTHING: See Hosiery
CLOTTING: See Blood coagulation
Intravenous: See Thrombophlebitis
COAGULATION: See Blood coagulation
COAL
action of quartz plus coal or graphite on lungs of rats, [Ray] 1538—ab
dust, effect of, and soot lung, [Gärtner] 874—ab
Miners: See Miners
COBALT
treatment of anemia, [Wolff] 1081—ab
COCARBOXYLASE
phosphoric esters of thiamine in diabetes mellitus, Colombia, 672
COCCIDIOIDIN
sensitivity and histoplasmin, Norway, [Böe] 1264—ab
COCCIDIOIDOMYCOSIS
histoplasmosis and tuberculosis, [Beadenkopf & Loosli] *621
in children, [Mead] *85
pulmonary cavitation and, [Winn] 960—ab
CODE
of Ethics: See Ethics, Medical
COITUS: See also Contraception; Frigidity; Libido; Rape; Semen; Spermatozoa
cystitis following, 1546
vaginal orgasm, 978
COLD: See also Frostbite; Ice; Refrigeration
Agglutinins: See Agglutinins, cold
air, chest pain after inhaling, 508
hypothermia (induced) in heart surgery, [Boerema] 1614—ab
life at low body temperature: cause of death from exposure to, [Lutz] 407—ab
water mattress to prevent hyperthermia during anesthesia, [Bigler & McQuiston] *553
COLDS: See also Hay Fever; Throat, sore
cyclic attacks of allergy in childhood, [Breidahl] 292—ab
Let's Have Fewer Colds (film review), 959
treatment, antihistamines, [Shaw] 65—ab
treatment, antihistamines, New York Academy statement, *495
treatment, wholesale use of sulfonamides and antibiotics, 221
COLITIS
mucous, foul stools in young child, 299
ulcerative, ACTH for, [Gray] 1256—ab
ulcerative, cortisone for, [Machella] 1529—ab
ulcerative, psychotherapy, [Groen] 1259—ab
ulcerative, surgical intervention in, [Lahey] 1531—ab
ulcerative, treatment, [Grace & Wolff] *981
ulcerative, vagotomy in, [Eddy] 216—ab
COLLAGEN
disease, [Billig] *1179
disease, adrenals in, [Selye] 970—ab
disease, trial of cinchoninic acid derivative, [Rennie] 683—ab
COLLAPSE: See Shock
Therapy: See Pneumothorax, Artificial; Tuberculosis of Lung
COLLEGE: See University
Education: See Education, Medical, premedical
Medical: See Schools, Medical
of Physicians, Surgeons: See American College
Students: See Students; Students, Medical
COLLES Fracture: See Radius
COLLINS Foundation: See Foundations
COLOMBIAN Congress of Pediatrics (first), 56
COLON: See also Cecum; Colitis; Colostomy
cancer, diagnosis, [McCormick] 1354—ab
cancer, metachronous, [Rankin & Conger] *918
examination in absence of symptoms, [Young] 282—ab
megacolon, Hirschsprung's disease, [Bodian] 603—ab
segment, transposition of, as gastric reservoir, [Lee] 1078—ab
transverse, reduplication, [Higgins] 1353—ab
tumors, adenomatous polyps, [Castro] 288—ab; [Bacon] 1537—ab
COLOR BLINDNESS
in hunters, 415
COLORING: See Dyes; Eyes; Pigmentation; Staining
COLOSTOMY
its reconstruction and care, [Campbell & Schaerrer] *93
COMA: See also Unconsciousness
Diabetic: See Diabetes Mellitus, coma
treatment, electroencephalogram after, 298
COMBAT: See Korean War
COMMENDATION for War Service: See Korean War, Heroes; World War II, Heroes
COMMERCIAL SOLVENTS Award: See Prizes
COMMISSION: See also Joint Commission; list of Societies and Other Organizations at end of letter S
on Accreditation of Hospitals, A.M.A. resolution on appointments to, 850

COMMISSION—Continued
on Chronic Illness, (nursing homes: their part in community's attack on chronic illness) 562—E; (director of program: Dr. Levin) 565; (National Conference on Chronic Disease, Preventive Aspects) 652—E
on Financing Higher Education, 376—E
on shock, Pa., 1129
COMMISSIONS: See Armed Forces; Army, U. S.
COMMISSUROTOMY: See Heart surgery
COMMITTEE: See also list of Societies and Other Organizations at end of letter S
A.M.A.: See American Medical Association
on Detection in Private Practice appointed by National Conference on Chronic Disease, 652—E
on Evaluation of Detection, National Conference on Chronic Disease, 652—E
on Statistics of the Blind, seeks more exact causes of blindness, 1141
COMMONWEALTH Therapeutic Units, 1235
COMMUNICABLE DISEASES: See also Infectious Disease
Communicable Disease Center of the U. S. Public Health Service at Atlanta, (training courses) 492; (new building; picture) 862
in foreign countries, 1519
outside United States, 385
COMMUNISM
American Legion's All-American Conference to Combat, A.M.A. contributes to, 1328
A.M.A. resolution on, 934; (in public schools) 849; 1598—E
COMMUNITY
Nutrition Institute (5th), New York, 384
COMPENSATION: See Income; Wages
for Injuries: See Workmen's Compensation
of Physicians: See Fees; Medicolegal Abstracts at end of Letter M
COMPOUND E: See Cortisone
CONCEPTION: See Fertility; Pregnancy; Sterility
Control of: See Contraception
CONDUCT: See Behavior; Ethics, Medical
CONFERENCE: See also National Conference; World Conference; under list of Societies at end of letter S
on health education, 268
South East Medical Conference (first), Philippine Islands, 1150
CONGELATIO: See Frostbite
CONGO
medicine in, 393
scientific research in, 394
CONGRESS: See also International Congress; National Congress; World Congress; list of Societies at end of letter S
on Occupational Medicine, Italy, 577
U. S.: legislation considered by: See Laws and Legislation, federal
CONJUNCTIVA
preventing irritation in exophthalmos, 508
CONJUNCTIVITIS: See also Keratoconjunctivitis
Reiter's syndrome, ACTH intravenously for, [Mandel & others] *546
vernal, (reply) [Levin] 880
CONSCIOUSNESS
Loss of: See Unconsciousness
time at altitude, [Hall] 216—ab
CONSTIPATION: See also Cathartics; Enema
in child, 222
CONSTITUTION: See also Personality
insulin sensitivity and, [Lister] 682—ab
CONSULTANTS: See Veterans Administration
CONTACT Dermatitis: See Dermatitis venenata
CONTAGION: See Infection
CONTAGIOUS DISEASE: See Infectious Disease
CONTEBEN: See Amithiozone
CONTEST: See Prizes
CONTINUATION Courses: See Education, Medical, graduate
CONTRACEPTION
chronic cystic mastitis and, (replies) [Fitts & Hoffman; Kennedy; Greenhill] 78
marriage and the "safe period," Italy, 212
natural birth control: possibility of more than one ovum in one month, 221
CONTRACT Practice: See Medicine, practice
CONTRACTION
muscular, 1032—E
Sir Morton Smart's contraction unit, 338
CONTRACTURE
fibrous: collagen disease, [Billig] *1179
CONVALESCENCE: See also under specific diseases as Poliomyelitis; Throat, sore
hospitals for convalescents, statistics, *116
Rehabilitation: See Rehabilitation
CONVENTION, A.M.A.: See American Medical Association, Atlantic City Session
CONVICTS: See Criminals
CONVULSIONS: See also Eclampsia; Epilepsy
isolated, in 10 year old girl being treated with cortisone, [Dorfman & others] (addendum) *27
status epilepticus coincident with use of ACTH, 3 cases, [Dorfman & others] *25
Therapeutic: See Electric shock treatment
COOKING AND EATING UTENSILS
aluminum, use in preparing foods, A.M.A. Council statement, 477
COOPERATIVE for American Remittances to Europe: See CARE
Medical Advertising Bureau: See American Medical Association, State Journal Advertising Bureau
COPPER
amorphous, cause anemia? 77
COR Pulmonale: See Heart hypertrophy
Triloculare biatrum: See Heart anomalies
CORNEA: See also Keratoconjunctivitis
dystrophy after thyroidectomy, [Pau] 970—ab
tattoo for restoration of eye color, [Pickrell] 1350—ab
CORNING EXTRACT
methemoglobinemic cyanosis, [Tepperman & others] *923
CORNSTALK
eye infection from, 1087
CORONARY
Arteries: See Arteries, coronary
Thrombosis: See Thrombosis
CORPORA CAVERNOSA
induration of: Peyronie's disease, 75; 1620
CORPUS LUTEUM
Hormone: See Progesterone
CORTICAL HYPEROSTOSIS, Infantile: See Hyperostosis
CORTICOSTERONE: See Desoxycorticosterone
CORTICOTROPHIN: See ACTH
CORTISONE (Compound E)
ACTH and adrenal cortex, [Proctor] 400—ab
ACTH and, Denmark, 1149
ACTH and infertility, 765
acetate, N.N.R., (description) 1422; (Merck) 1423
concentration in eggs, [Kilbourne] 215—ab
Criss Award (first) to Drs. Hench and Kendall, Minnesota, 856
effect on erythrocyte sedimentation rate, 291—E; [Fischel] 1340—C
effect on somatotropic hormone, [Seyle] 230—ab
effect on survival of skin grafts, [Billingham] 1615—ab
pregnancy and, Paris, 493
toxicity: cutaneous effects, [Brunner] 1346—ab
toxicity: danger of adrenal atrophy induced by ACTH or, 1365
toxicity: hemorrhage tendencies, 1273
toxicity: isolated convulsion in 10 year old girl, [Dorfman & others] (addendum) *27
toxicity: suicide following treatment, [Borman & Shmallenberg] *337; [Hulett] 1151—C
toxicity: thromboembolic episodes, [Coste] 1617—ab
Treatment: See also Adrenals, hyperplasia; Arthritis, Rheumatoid; Colitis, ulcerative; Granuloma; Heart inflammation; Intestines, inflammation; Larynx edema; Scleroderma; Streptococcus infection
treatment compared with ACTH, [Zanartu] 1452—ab
treatment in ophthalmology, first clinical experiments, Switzerland, 213
treatment, local and systemic, in ocular disease, [Leopold] 1069—ab
treatment, loss of vaccination protection after, [Solotorovsky] 681—ab
treatment of chorea minor of no value, 1271
treatment of convalescence after hemolytic streptococcic sore throat, [Doerner & others] *641
treatment, oral, in asthma, [Friedlaender & Friedlaender] *1381
treatment plus ACTH in acute crisis of systematic lupus erythematosus, [Haserick & others] *643
treatment plus ACTH in panhypopituitarism with arthritis, [Schrock] 755—ab
treatment plus ACTH in rheumatic fever, [Keith] 968—ab
CORTONE ACETATE
N.N.R., (description) 1422; (Merck) 1423
CORYZA: See Colds
COSMETICS
beauty shop operators, 879
COSMOTRON
visitor's day at Brookhaven, 275
COTTON
mill worker, asthma in, 607
COUGH: See Colds; Sputum; Whooping Cough
COUMARIN: See Bishydroxycoumarin
COUNCIL
A.M.A.: See American Medical Association
COUNTY
Health Dept.: See Health
Society: See Societies, Medical; list of societies at end of letter S
COURSES: See Education, Medical, graduate
COURT Decision: Trial: See Medical Jurisprudence
COWS: See Cattle
COW'S MILK: See Milk
COXSACKIE DISEASE
virus, award for discovery of, New York, 1240
CRAMPS
Menstrual: See Dysmenorrhea
CRANIUM: See also Brain; Head
electric convulsion therapy with tantalum plate in skull, [Osmond] 1167—ab
hyperostosis from vitamin A poisoning, [Bair] 1574
CREAM
effects on blood coagulation, [Waldron] 1259—ab
CRIME
of mentlecide, [Meerloo] 498—ab
CRIMINALS
sexual psychopath, [Karpman] *721
CRIPPLED: See also Handicapped; Poliomyelitis
children personnel workshops, 386
children, Society for, opens new hospital, Israel, 1248
World Congress for Welfare of Cripples, 1431
CRISS Award: See Prizes
CROOKSHANK Award: See Prizes
CRYPTOCOCCOSIS (torulosis)
meningitis, [Cook] *1105
CRYPTORCHISM: See Testis, undescended
CRYSTALLINE Lens: See Lens, Crystalline
CUIRASS RESPIRATOR
use in acute poliomyelitis, [Plum & Wolff] *444
CULDOCENTESIS: See Douglas Pouch
CULTS: See also Chiropractors; Naturopaths; Osteopaths
examined in basic science, 1950, *372
CULTURE: See also Tissue
media, list of, for fungi, [Ajello] *1581
CURARE
adjunct to relaxation in esophagoscopy, [McLaurin] 1444—ab
death after giving syncurine and curare, [Zimmerman] 864—C; [Lieberman] 1608—C
CURLING'S Ulcer: See Ulcers
CUSHING SYNDROME
chronic hypercorticalism in adults, [Gilbert-Dreyfus] 1452—ab
hemorrhage tendencies from use of cortisone and ACTH, 1273
nervous and mental disorders in, [Spillane] 1538—ab
CYANOSIS
methemoglobinemic, from syrup substitute, [Tepperman & others] *923
nitrates in well water cause of, [Ewing] 1356—ab
CYCLOGESTERIN
test to diagnose pregnancy, 415
CYCLOPROPANE (trimethylene)
shock, (reply) [Ruben] 608
CYST: See also under names of specific organs as Bones; Breast
Hydatid: See Echinococcosis
CYSTADENOMA
of pancreas, [Mozan] 676—ab
CYSTECTOMY: See Bladder
CYSTICERCUS
bovis in cattle and beef tapeworm in man, [Griffiths] 682—ab
CYSTITIS: See Bladder inflammation
CYSTOCELE: See Bladder
CYTOMYCOSIS, Reticulo-endothelial: See Histoplasmosis

D

DDT: See Chlorophenothane
DAHLBERG Hearing Aid, Model D-1, 1135
DAIRY PRODUCTS: See Cream; Milk
DAMON RUNYON Memorial Fund: See Foundations, Runyon
DANDELIONS
blooms as remedy for night blindness [Nidermeier] 760—ab
DANISH: 1
Index Medicus, 1149
Medical Association, new headquarters, 863
mentality of Danes compared with Dutchmen and Finns, 276
Red Cross: See Red Cross
DARLING Disease: See Histoplasmosis
DEAFNESS
center for the hard of hearing at Tulane U., 1517
electroencephalography in, [Marcus] 59—ab
etiology: nutritional deficiency? [Lobel] 1441—ab; 1528—ab
Nerve: See Otosclerosis
Treatment: See Hearing Aids
DEATH: See also Murder; Suicide
cause of, after stellate ganglion block in postoperative lymphedema, [Pallin] 500—ab
cause of, from exposure to cold, [Lutz] 407—ab
cause of, injuries in competitive sports, [Jokl] 67—ab; [Gonzales] *1506
certificates, inaccuracies in, Denmark, 749
certificates, more facts on deaths from various poisons, Council report, 927
certification of causes of death (film review), 1427
electrical potentials in, 1366
impending death under anesthesia, [Thorek] 62—ab
Maternal Deaths: See Maternity mortality
of Fetus: See Stillbirth

DEATH—Continued
of Infants: See Infants, mortality
of Physicians: See list of Deaths at end of letter D
Rate: See Vital Statistics
sudden, after operation, [Shumacker] 63—ab
sudden, alcohol and violent death, [Spain & others] *334
sudden, in asthma, [Walton] 407—ab
War Dead: See Korean War, Heroes
DEBILITY
tracheotomy to prevent pulmonary complications in severely debilitated patients, [Atkins] *241
DECIDUOMA Malignum: See Chorionic Carcinoma
DECUBITUS
ulcers complicating spinal cord injuries, [Pollock & others] *1554
ulcers complicating spinal cord injuries, reconstructive surgery for, [Comarr] *229
ulcers in paraplegia, [Dinken] *232; [Conway] 680—ab
DEEDS: See Medicolegal Abstracts at end of letter M
DEFECATION: See Feces
DEFECTIVES: See Mental Defectives
DEFECTS: See Crippled; Disability; Handicapped; Physical Fitness
DEFENSE: See Civilian Defense; Medical Preparedness
Department of: See Armed Forces
DEFERMENT, Military: See Medical Preparedness
DEFICIENCY DISEASE: See Beriberi; Nutrition, deficiency
DEFINITION: See Terminology
DEFLUVIUM: See Alopecia
DEFORMITIES: See Abnormalities; Crippled; Poliomyelitis
DEGENERATIVE Arthritis: See Osteoarthritis
de KRUIF, PAUL, "Your Doctor for a Friend" and "What About This 'Doctor Shortage?'" in *Reader's Digest*, 379—E; (President's Page) 383
DELIVERY: See Labor
DEMENTIA PRECOX
prognosis in paranoid schizophrenia, [Seitz] 1441—ab
treatment, results of topectomy, [Hoch] 1351—ab
DEMEROL: See Meperidine
DENMARK: See Danish
DENTAL Caries: See Teeth caries
DENTIFRICES
containing fluoride, 1176
DENTISTRY: See also Dentifrices; Jaws; Teeth
dermatitis in dentists from local anesthetics, [Lane & Luikart] *719
income of dentists vs. physicians, [Dickinson & Bradley] *1251
DEODORANT: See Odor prevention
DEPARTMENT of Defense: See Armed Forces
DEPRESSION
Agitated: See Psychosis, manic depressive
Mental: See Melancholia; Mental Depression
DERMATITIS: See also Eczema
Atopic: See Neurodermatitis
Contact: See Dermatitis venenata
etiology: local anesthetics, [Lane & Luikart] *717
etiology: rubber gloves, [Botvinick] 600—ab
gold, ACTH for, [Steinberg & Roodenburg] *1225
gold, BAL for, [Kirsch] 754—ab
herpetiformis, [Peterkin] 289—ab
schistosome, or swimmer's itch, 1104—ab
venenata: contact dermatitis, 901—ab
DERMATOLOGY: See also Skin; under names of specific skin diseases
fellowship in, available at Washington University, St. Louis, 1429
teaching programs deficient, A.M.A. resolution on, 1040
DERMATOPHYTOSIS: See also Tinea capitis
diagnosis, staining fungi in skin scraping with basic fuchsin, [Kligman & Mescon] *1563
interdigital infectious syphilitic lesions simulating, [Dexter] 1342—ab
ringworm of hands and feet, historical review, [Mitchell] *541
DERMATOSIS: See Skin disease
DE ROALDES Gold Medal: See Prizes
DESENSITIZATION: See Allergy
DESERT
child syphilis or bejel, Turkey, 54
Fever: See Coccidioidomycosis
DESOXYCORTICOSTERONE (corticosterone)
acetate in rheumatoid arthritis, [Norcross] 1349—ab
treatment plus ascorbic acid in arthropathies, [Tassinari] 1171—ab
DEUTSCH, ALBERT
A.M.A. and A.H.A. reply to article in *Woman's Home Companion*: "Trouble in Our Hospitals," 202
DEVICE: See Apparatus
DEXTROSE
use in infantile diarrhea: helpful rather than harmful, 416; (reply) [Holt] 1274
DIABETES, BRONZE: See Hemochromatosis
DIABETES MELLITUS: See also Medicolegal Abstract at end of letter M
American Diabetes Association (11th annual meeting), 569
coma, hypopotassemia in, [Bertolini] 1166—ab
coma, ketone bodies etiologic role, [Fisher] 1069—ab
complications: adult form of chronic porphyria, [Brunsting & others] *1207
complications: cirrhosis of liver and melanoderma, [Saad Hossne] 969—ab
complications: degenerative vascular lesions, preventing, [Wilson] 1529—ab
complications: hemochromatosis, unusual case, [Doane & others] *926
complications: necrobiosis lipoidica, 298; 508
complications: pregnancy, 909—ab
control in employees, 767
control program, Wis., 568
Diabetes Detection Report, Conn., 658
diagnosis, alkaptonuria mistaken for, [Mauser] *815
etiology, [Downie] 971—ab
etiology, hyalinization of islands of Langerhans in patient, Opie case report, 787—ab
heredity; marriage of patients advisable? [Thöne] 1081—ab
insulin and hypopotassemia, Israel, 1247
Kanawha Diabetic Lay Society, W. Va., 660
kit, 44
summer camp by Chicago Diabetes Association, 204
Swedish Diabetes Association, 1524
treatment, phosphoric esters of thiamine, Colombia, 672
treatment, victims warned of dangerous remedy: Mexican Indian Root, 1055
work and, Italy, 576
DIAGNOSIS: See also under names of specific diseases
Committee on Evaluation of Detection, National Conference on Chronic Disease, 652—E
detection of chronic disease, [Levin] *1397
Diagnostic Center on campus at U. of Wisconsin, 1430
mistaken: drifts, deceptions and common misses, [Neal] *537
mistaken, in gastric ulcer, [Palmer] 967—ab
multiphasic screening, [Goldwater] 495—C
radioactive isotopes in (Council article), [Kelsey] *1131
ultrasonics in, 1033—E
DIAPER
aniline methemoglobinemia in infants from fresh marking ink on, [Howarth] 1356—ab
rash: cause, treatment, 416
rash: treatment with methionine, (reply) [Lawson] 1546
DIAPHRAGM
eventration, tantalum mesh in, [Monahan] 1076—ab
flutter with angina pectoris symptoms in malingerer, [Craddock] *1315
Hernia: See Hernia, diaphragmatic
DIARRHEA: See also Dysentery
epidemic in school for boys, [Ingalls & Britten] *710
infantile, treatment, 416; (reply: carbohydrates helpful rather than harmful) [Holt] 1274
periodic attacks of diffuse abdominal pain and, (reply) [Reimann] 608
DIASONE: See Sulfoxone
DIATHERMY
Aloetron Short Wave, Model F 8400, 1235
Rovie Electrosurgical Unit, Model 0-4, 1135
equipment, Federal Communications Commission regulations, 481; (correction) 1056
Hanovia Medical Diathermy, 27.12 megacycles, 338
Meditherm, Model 1600-A, 108
treatment of arteriosclerotic aneurysms with electrocoagulation and wiring, [Blakemore] 1158—ab
DIATHESIS
hemorrhagic, as symptom of carcinoma, [Zeldenrust] 1168—ab
DIBENAMINE
treatment of pheochromocytoma, [Cahill] 1446—ab
DIBUCAINE (nupercaine)
dermatitis from local anesthetics, [Lane & Luikart] *718
ointment, treatment of Rhus dermatitis, [Hoagland & others] *612
DICETYL PHOSPHATE
substances used to stimulate fibrous tissue, 509; (reply) [Berman] 1546
DICHLORODIPHENYLTRICHLOROETHANE: See Chlorophenothane (DDT)
DICOUMARIN: See Bishydroxycoumarin
DICUMAROL: See Bishydroxycoumarin
DIELDRIN
poisoning, 378—E
DIENCEPHALON: See Brain
DIET: See also Food; Nutrition; Medicolegal Abstract at end of letter M
advice on, 464—ab
Calories in: See Calories
DIET—Continued
Deficiency: See Nutrition, deficiency
following gastrectomy, 1363
Infant's: See Infants, feeding
milk-free, and dental caries, 415
Protein in: See Protein
Reducing: See Obesity, treatment
therapeutic, rice, in hypertension, [Loofbourow] 1348—ab
Vitamins in: See Vitamins
DIETHYLSTILBESTROL
U.S.P., N.N.R., (Barlow-Maney Laboratories) 927
use of, on noncancerous prostate, 766
DIGITALIS
effect on fibrillating auricle, cinematographic and oscillographic study, [Prinzmetal & others] *1275
potassium and, 1030—E; [Lown] 1447—ab
pulmonary edema and, 222
treatment of acute myocardial infarction, [Martin] *1008
DIHYDROSTREPTOMYCIN
treatment of acne vulgaris, [Andrews & others] *1107
treatment of lupus, 296
DIIODOHYDROXYQUINOLINE (diodoquin)
treatment of amebiasis, [Conn] 680—ab
treatment of excess gas in intestine, 691
DIMENFORMON benzoate in oil, solution, N.N.R., (Organon) 1134
DIMENHYDRINATE (dramamine)
treatment of radiation sickness, [DeFeo] 1263—ab
DIMERCAPROL: See BAL
DIMERCAPTOPROPANOL: See BAL
DIMETHYL-TUBOCURARINE CHLORIDE
name recognized by Council, 927
DIODOQUIN: See Diiodohydroxyquinoline
DIPHTHERIA
experimental, antibiotics in, [Hewitt] 68—ab
immunization in Paris, 1338
immunization, poliomyelitis after, Belfast, [McLeod] 1165—ab
immunizing injections, paralysis after, [Bousfield] 1450—ab
in South America, 1519
outbreaks, 1055
toxoid (alum precipitated) N.N.R., (Squibb) 927
toxoid and pertussis vaccine combined, alum precipitated, N.N.R., (Squibb) 1134
toxoid and tetanus toxoids combined, (alum precipitated), N.N.R., (Pitman - Moore; Squibb) 1134
DIPHYLLOBOTHRIUM Latum: See Tapeworm
DIRECTORY: See American Medical Directory
DISABILITY: See also Accidents; Blindness; Crippled; Handicapped; Workmen's Compensation
Chronically Ill: See Disease
Industrial: See Industrial Accidents
Rehabilitation: See Rehabilitation
service-connected, VA presumptions of, 382
DISASTERS: See also Earthquakes; Floods
blueprint for industrial physician, (Council report) 1064
DISCOVERIES: See Patents
DISEASE: See also Death; Health; Pathology; under names of specific diseases
cat scratches cause of, [Thélin] 71 ab; [Greer] 1261—ab
chronic, A.M.A. Committee on, report, 941
chronic, Commission on Chronic Illness, 562—E; 565
chronic, detection of, [Levin] *1397
chronic, health resort in management of, (Council report) 1324
chronic, National Conference on Chronic Disease: preventive aspects, 652—E
chronic, nursing homes: their part in community's attack on chronic illness, 562—E
chronically ill, study of, N. J., 384
Communicable: See Communicable Diseases
Contagious: See Infectious Disease
Convalescence from: See Convalescence
Diagnosis of: See Diagnosis
Disabling: See Disability
Hazard: See Industrial Diseases
Industrial: See Industrial Diseases
Mental: See Mental Disorders
Nomenclature: See Terminology
of Old Age: See Old Age
Patients: See Patients
Prevention: See Preventive Medicine
Rate: See Vital Statistics
Sickness Insurance: See Insurance, sickness
survey of sickness in U.S., 39
traceable to water and milk, 52
Treatment of: See Hospitals; Therapeutics
DISHES: See Cooking and Eating Utensils
DISINFECTANTS: See Sterilization, Bacterial
DISPENSARIES: See Clinics
DIURETICS
mercurial, advisable to control edema in pregnancy? 415
mercurial, self-injection of, [Krehbiel & Stewart] *250
mercurial, toxic reactions to meralluride injection, but **not** to mercaptomerin, [Reeves] *1594

DIURETICS—Continued
procaine intravenously as diuretic in toxemia, [Serwer] 65—ab
reduction of antidiuretic activity in ACTH, [Reinhardt] 1447—ab
DIVERTICULA: See Stomach
DIZZINESS: See Vertigo
DOCTORS: See Physicians
DOGS: See Rabies
DONALD DUCK Frozen Concentrated Orange Juice, 108
DONATELLI, LEONARDO, appointed to chair of pharmacology, Italy, 276
DONATIONS: See Fellowships; Foundations; Prizes; Research grants; Scholarships
DONORS: See Blood Transfusion
DOUGLAS POUCH
culdocentesis, [Beacham] 64—ab
DRAFT: Draft Board: See Medical Preparedness
DRAINAGE
thoracotomy, for idiopathic spontaneous pneumothorax, [Hughes & others] *244
DRAMAMINE: See Dimenhydrinate
DRAWING: See Art
DRINKING: See Alcoholism; Water
DRIVERS: Driving: See Automobiles
DROMORAN: See Methorphinan
DROPSY: See Ascites; Edema
DRUGLESS HEALERS: See Cults
DRUGS: See also Pharmaceuticals; under names of specific drugs
DRUGS—Continued
Anesthetic: See Anesthesia
new, evaluation, [Leake] 495—C
Prescriptions: See Prescriptions
resistance and combined therapy in urinary tract infections, [Kimmelman] 1535—ab
role in plant economy, 650—ab
Self-Medication: See Self-Medication
U.S. companies to produce, in South America, 741
DRUNKENNESS: See Alcoholism; Medicolegal Abstracts at end of letter M
DUCTLESS GLANDS: See Endocrine Glands
DUES: See American Medical Association membership
DUNBAR, PAUL B., food and drugs commissioner retires, 746
DUNLOP'S traction (modified) for fractures of elbow in children, [Blount & others] *699
DUODENAL TUBE
mercury lost in gastrointestinal tract, [Cantor] *560
DUODENUM
Hemorrhage: See Peptic Ulcer
obstruction: arteriomesenteric ileus, [Telford] 62—ab
obstruction in newborn, [Wyatt] *236; [Rankin] 1163—ab
Surgery: See Peptic Ulcer surgical treatment
Ulcer: See Peptic Ulcer
DUST
Inhalation of: See Pneumonoconiosis
DUSTING POWDER
effect of rubber glove powder on eye, [Schwartz] 1443—ab
DWARFISM
in 4 year old child, 691
DYER Lecture: See Lectures
DYES: See also Fuchsin; Methylene Blue
bladder and kidney lesions in workers, [Müller] 760—ab
hair, reliable types, 509
injection for spontaneous cerebrospinal rhinorrhea, [Kahn] *728
DYSENTERY: See also Diarrhea
bacillary, 1514—E
bacillary, vitamin K treatment, [Krause] 1079—ab
DYSHIDROSIS: See Sweat
DYSMENORRHEA
treatment; no one cure, 1413—ab
DYSPLASIA: See Bones
DYSPNEA: See also Asthma
treatment, aerosol, in cardiac patient, [Monfardini] 409—ab
DYSTROPHY
Muscular: See also Myasthenia Gravis
muscular, National Muscular Dystrophy Foundation Committee, 740
muscular, progressive, 608
muscular, pseudohypertrophic, 768
muscular, Today and Tomorrow, (film review) 496

DEATHS

A

Abbott, Charles E., 1145
Abbott, Theodore Jacob, 389
Abbott, William Richard, 490
Abington, W. H., 572
Abramovitz, Morris, 48
Adams, John Robert, 744
Agan, John Newton, 1335
Ahrens, Leo Charles, 490
Aldrich, Addison D., 743
Allen, Martin Sylvester, 1145
Allison, Blake Seymour, 744
Alter, Retia H., 49
Althans, Carl, 572
Amdor, William Franklin, 1434
Amick, Albert Lester, 48
Anderson, Earvye Harry, 1335
Anderson, James LeRoy, 48
Anderson, Jesse James, 389
Anderson, John Birckhead, 664
Anderson, John Burton, 744
Anthony, Francis Wayland, 490
Appleman, James Henderson, 48
Armstrong, Edward Cornelius, 1145
Armstrong, Ellery Leslie, 271
Ausman, Carl Frederick, 1243
Auten, Will James, 48

B

Baastrup, C. I., 277
Bagli, Francis Lucian, 389
Bailey, Frank James, 48
Baird, Wilson Davis Sr., 1434
Baker, Frank Kline, 744
Bakes, Edwin Clair, 1335
Banach, Leon, 572
Banks, Claude Melnotte, 48
Barker, Merritt Corey, 48
Barnum, Charles Gardiner, 1434
Baron, Samuel Lincoln, 1145
Barrett, Omar H., 490
Bartlett, Ezekiel Merrell, 389
Bauer, Samuel Louis, 48
Baum, Harry Lester, 743
Baumeister, Charles F., 1145
Beaudoux, Henry Alexander, 1335
Becker, Eli George, 1335
Beckman, William Woods, 664
Beecher, William Lyman, 270
Bell, Celsus Price, 1434
Benn, Ferdinand George, 572
Betts, James Alfred, 490
Beyer, Hart, 1243
Bibby, Kenneth Adams, 1434
Bickley, G. G., 1434
Bieler, Leo, 271
Bierly, Fred, 1243
Bigger, David Andrew, 48
Bigler, Sherman Edwin, 48
Bishop, Eugene Lindsay, 47
Bishop, John S., 1243
Black, Martin Luther, 1335
Blackburn, John Henry, 389
Blackstone, Alfred Varney, 389
Blackwell, Samuel R., 572
Blair, James Luther, 48
Blandford, Mark Hardin, 951
Blank, Frederick, 48
Bleick, Theodore Edward, 48
Bloemendaal, Edwin Gerald John, 1145
Bloomingston, Frances E. Drake, 744
Bloss, James Ramsdell, 208
Blount, William Thomas, 271
Blumer, Frederick William, 389
Bolles, Julius Ralph, 48
Boon, Charles Lester, 490
Bossingham, Ottmer Nathaniel, 1335
Bowen, Charles Fred, 1243
Bowen, John Thomas, 665
Bowen, William Sinclair, 1243
Bowers, George Francis Haskell, 665
Bowles, Eugene K., 1434
Bowman, Fred Arnold, 1145
Boyce, Samuel George, 1145
Brackett, Edward Sumner, 389
Bracy, Rolla, 48
Bradford, Edward Burton, 490
Bradish, Jay Durkee, 744
Bradley, John Martin, 1145
Bradt, Elizabeth Gilchrist, 665
Breitzer, Constantine, 744
Breisford, Harley H., 48
Brennan, John C., 1434
Brennglass, Joachim, 1243
Briggs, Stanley J., 1243
Brigham, Jeanette M., 1145
Brinkman, George Franklin, 1243
Britton, Roland L., 1145
Brown, George Niswander, 48
Brown, Newell Jonathan, 1434
Brown, Stanley Robert, 1335
Brown, Thomas Kenneth, 951
Brown, William Frank, 744
Browning, Irving Robert, 951
Brugh, Benjamin Franklin, 48
Brungard, Otis Daniel, 48
Bryant, William Cullen, 389
Bubna, Louis Edward, 1145
Buck, Kathleen Loretto, 490
Buckman, Isaac, 1145
Buckmann, Henry D., 389
Buckmaster, Frank, 48
Buechler, Joseph L. A., 951
Bull, P., 1247
Burch, Albert J., 665
Burgett, Warren Eugene, 389
Burke, William Augustus, 1145
Burnap, Willard Lathrop, 1144
Burnett, James Robinet 572
Burns, George Samuel, 48
Burriss, Walton Swindells, 951
Butler, William Lucas, 1335
Buttorff, Gordon Stephen, 1243

C

Cabot, Caroline Whittier, 951
Call, John Calvin Jr., 744
Callerstrom, Gottfried William, 1145
Campbell, John Stewart, 48
Cardell, Leonard Arthur, 951
Carpenter, George Lansing, 744
Carr, Percy Whitman, 1243
Carriel, Henry B., 490
Carroll, John William, 1434
Carter, Jonathan Basil, 271
Casey, Emmet Francis, 1136
Cassels, Louis Raymond, 1605
Chadwick, Isaac A., 48
Chambers, William, 572
Chamness, Clyde James, 1336
Chandler, John Franklin, 572
Chapman, Arthur William, 744
Charlap, Fishel, 271
Chipman, Rupert James, 490
Clapp, Fred Raymond, 744
Clark, Carl Wesley, 389
Clark, Samuel Ford, 951
Clarke, Raymond Willis, 48
Clayton, John M., 665
Clegg, Earl George, 572
Cliff, Harry Roberts, 1336
Clobridge, Charles E., 48
Coachman, Edwin Horace, 1605
Coffey, J. O., 572
Cohen, Rose, 951
Cohenour, Leo Bertram, 744
Colby, Fred Bennett, 1605
Collins, William David, 665
Combs, John Wesley, 951
Conaway, Aaron Clyde, 48
Conner, Homer Leigh, 1243
Conover, Earl, 572
Conroy, John Stanislaus, 951
Coonse, George Kenneth, 951
Cooper, Samuel Emerson, 490
Copenhaver, Meek Marion, 1145
Copps, Lyman Alden, 1243
Cotton, Albertus, 1144
Cox, John West: See
Cox, Jonathan West, 951
Cracroft, Thomas Byron, 1145
Cragwall, Albert Owen, 951
Craig, Albert James, 490
Craig, Edwin M., 744
Crawford, Charles Brown, 48
Crossen, Harry Sturgeon, 664
Crowell, Bowman Corning, 743
Cutler, Franklin Earl, 1145

D

Da Costa, Samuel N., 744
Dainty, George Wood, 572
Dalberg, Walter James, 1336
Daley, Lyle Miner, 1243
Darnell, William Turner, 1336
Daugherty, Thomas E., 744
Davis, David Bennett, 859
Davis, George Edwin, 664
Davis, Winnifred Puffer, 48
Davison, Bruce Howard, 951
De Armond, Richard S., 951
Decherd, George Michael Jr., 1144
Decker, John Jacob, 951
Decker, Raymond Rudolph, 208
De Kraker, James M., 209
Demase, Joseph Charles, 1336
Deutsch, Morris I., 665
Dick, Walter, 48
Dinsmore, William Wert, 1605
Dixon, Garvin Jonathan, 389
Dock, George, 1335
Dolder, Felix Charles, 490
Dolezal, Charles Theopilus, 270
Dolnick, Max A., 744
Donnelly, Francis Edward, 49
Donnelly, James Francis, 209
Donohoe, Lucius Francis, 1335
Donovan, Patrick M., 951
Dougherty, Lewis Edwin, 572
Dowling, Joseph Ivimey, 572
Drew, Horace Rainsford, 1605
Dudley, Gustave Beauregard, 665
DuFrenne, Martin Fred, 745
Dugan, Lawrence Jay, 951
Duhamel, Oliver Gilbert, 572
Dulaney, Henry Kennedy, 572
Dulin, John Albert, 952
Dunn, Frank C., 49
Dunn, Oscar Orlando, 1336
Dunning, William Meddaugh, 1335
Dyas, Thomas C., 572

E

Easley, Henry Owen, 1336
Eason, William Henry, 1336
Eddington, Royal Lacey, 1336
Eddleman, Owen Albert, 1243
Edgcomb, John Harold, 209
Edwards, Henry Arthur, 49
Ehlers, Henry, 952
Elgin, Eugene, 271
Ellingson, Abel Rudolph, 952
Elliott-Graham, Alice Winifred, 209
Ellis, John W., 209
Elmer, Robert Potter, 389
Ely, Nina Maynard, 1336
Emerick, Edson James, 49
Emerson, Linn, 951
Englander, Simon, 573
English, Carroll Chapman, 49
Enochs, Robert Jones, 573
Enos, Manuel Manly, 49
Epstein, Samuel S., 952
Eshleman, Robert H., 952
Estes, Elmer Nelson, 952
Estes, James Leonidas, 49
Estey, Guy W., 389
Etheridge, William Maxey, 49

F

Face, Edward Gill Jr., 573
Fackt, Marie Philipina, 490
Fairbanks, Clark Vernon, 573
Fairless, Clyde Joseph Jr., 745
Farber, William Daniel, 1336
Farmer, Lucius Pierce, 1605
Farmer, Robert Allen, 573
Farthing, Charles Hamilton, 744
Faucett, Samuel Thompson, 389
Faulkner, Coryell Vincent, 952
Feigley, Harvey P., 209
Fellows, Frederick Brown, 573
Fenton, Alfred Archibald, 1336
Ferguson, James Bruce, 209
Ferris, Edward Day, 665
Finbury, Charles Mysel, 1336
Fischbach, Howard Phillip Sr., 952
Fisher, John Baxter, 952
Fisher, Roy Alm Jr., 952
Flagg, Charles Monroe, 209
Flamm, Louis Francis, 573
Fleury, Oswald Theodore, 389
Flint, Oliver Josephus, 860
Flocken, Charles Frederick, 49
Ford, William, 1145
Forman, Horace Judson Jr., 49
Fraim, Irving William, 49
Freeman, Benjamin Franklin, 1144
Friedenwald, Gilbert A., 49
Friedman, Louis Alexander, 209
Friedman, Simon Sydney, 209
Friis-Holm, Gudrun, 573
Fudema, John Joseph, 573
Fuller, Earl William, 1243
Fuller, Frederick Henry, 573
Fuller, Spencer Sam, 665

G

Gabrielianz, Alexander G., 1434
Gallion, William Earnest, 1605
Gardiner, Harry Miller, 665
Gardiner, William Robert, 49
Gardner, Russell Wilson, 1145
Garvey, Robert Robey, 49

Deaths—Continued
Garvin, Luke Denis, 573
Gattis, Emmett, 1336
Gauch, Frederick, 49
Gault, Reece C., 860
Gay, James Gaston, 49
Gay, Ray Jackson, 49
Gay, Robert James, 49
Gelb, Maurice, 860
Gellert, Samuel Morse, 1336
Gerow, James Wiggins, 744
Gholson, Norman Glasgow, 952
Gibbons, George Lee, 860
Gibson, Arias Palmer, 49
Gibson, John Francis, 665
Giddings, Charles Glenville Sr., 271
Gilbert, George Burton, 859
Gilbert, Mabelle Spaulding Watson, 860
Gilfillan, George William, 573
Gilligan, Alexander, 860
Ginsberg, Edward Louis, 490
Glaeser, Arthur Francis, 490
Glasgow, Marvin Claude, 49
Glass, Jesse Oscar, 1336
Glenn, Robert Baltzell, 1145
Goldwater, Abraham Lincoln, 573
Golitzin, Alexander V., 1605
Good, Mark Duty, 49
Gooding, Harvey Burt, 860
Gordon, Homer James, 1336
Gorfinkell, Julius, 49
Govar, Claude J., 860
Grace, John Franklin, 573
Gradman, Leo I., 49
Graham, Robert Hugh, 49
Green, Herbert Augustus, 49
Greenleaf, Clarence Albert, 573
Greenwald, Samuel, 1605
Gregg, Frank Benham, 744
Gresser, Edward Bellamy, 859
Griffin, Sarah Myrtle Freeberger, 860
Griffith, Charles Allen, 1605
Grimm, Homer Willard, 209
Griswold, Arthur H., 271
Gronoway, Terrence Ponderley, 573
Gros, Hubert, 744
Grove, William Edward, 208
Gulliver, Francis Daniel, 665
Gundrum, Willis H., 271
Gwin, James Jefferson, 271

H

Hall, Richard Allen, 49
Haile, Leon Campbell, 49
Haines, Thomas Harvey, 47
Hall, Rosetta Sherwood, 952
Halsey, John Taylor, 49
Halstead, Addison T., 209
Hamblen, Robert North, 490
Hamill, Claude Emmett, 1336
Hamilton, Benjamin Wallace, 1605
Hamilton, Paul Myron, 859
Hamsher, John Fremont, 271
Hanks, George Wallace, 490
Hanlein, Victor, 860
Hanson, Kenneth Boccarde, 573
Hanzlik, Paul John, 47
Harding, Carl William, 271
Harless, Leonidas R., 49
Harned, John Wisdom, 1145
Harned, Sophia P., 860
Harpst, Howard Henry, 744
Harris, Bryce Wilson, 1336
Harrison, John Francis, 860
Hartin, David, 573
Hartman, Frank G., 860
Hartz, William Harry, 744
Hassenplug, Frank Atwood, 50
Hastings, Seman Wood, 573
Hatch, Trafton LeRoy, 271
Haury, Richard Samuel, 573
Hay, Gilbert, W., 573
Hayes, Joseph David, 271
Haygood, Charles Wendell, 1144
Hayhurst, Leman Harrison, 1336
Hayward, John Dawson, 209
Hazen, Henry Honeyman, 859
Heath, George Arthur, 209
Heine, Clinton Daniel, 860
Hektoen, Ludvig, 1057
Helbing, Arlington, 573
Helper, Morton, 860
Henderson, Richard Alvin, 860
Henry, Frank Charles Jr., 1145
Henry, Ralph Howard, 50
Henson, Earl Bennette, 271
Herbst, Robert Harry, 859
Herrington, L. C., 490
Hersch, Thomas Franklin, 271
Kesser, John Jacob, 1243
Hibbard, Samuel M., 573
Hicks, Louis Calvin, 1605
Hill, Henry Garland, 860
Hill, William Isaac, 1336
Hilliard, Hercules C., 1145
Hirsh, Maurice, 572
Hise, Fred Rhodes, 860
Hodges, Joe Shirley, 951
Hodskins, Morgan Brewster, 952
Hoffman, Charles Wilbur, 665
Holding, Solomon Pace, 573
Holland, Cleil Gresham, 271
Holloman, Thomas Bascom, 573
Holmgren, Hjalmar, 278
Holmgren, Knut David, 1605
Hopkins, Joseph Gardner, 270
Horigan, Joseph Aschwanden, 744
Horn, Martin Irving, 744
Hornaday, Frank Adelbert, 209
Horne, Joseph Alvin, 860
Horton, Barney Elliott, 952
Hoster, Herman Albert, 860
Houston, Albert Joshua, 573
Houston, Rush, 860
Houston, Samuel Wilson, 209
Hover, Frank William, 860
Howard, Everett Edmunds, 1605
Howard, John Edgar, 573
Howe, Warren D., 573
Howell, Katharine Myrta, 1244
Hoyer, George Henry Christian, 209
Hoyt, Charles Wentworth, 573
Hoyt, Jesse Marion, 271
Hudson, Millard Fillmore, 745
Hughey, Albert Gesler, 271
Hull, Luther Nathaniel Jr., 209
Hummel, Leonard Malcolm, 573
Humphrey, Thomas Field, 1244
Hunt, George Pratt, 1434
Hunt, Robert Walter, 664
Hunter, Edwin William, 1145
Hutcherson, Robert L., 952
Hutchinson, Edward Buel, 209
Hutchinson, Joseph Lambert, 1336
Hyde, William George, 1244

I

Irwin, Thaddeus Stevens, 1145
Iseman, Lawrence Lee, 209
Ivey, Henry B., 50

J

Jack, Frederick Lafayette, 1243
Jack, Robert Berry, 272
Jackman, Luther Taylor, 50
Jackson, Calvin Franklin, 1244
Jacobs, Jay, 573
Jayet, Albert Charles A., 573
Jenifer, Daniel of St. Thomas, 952
Jensen, Ingvald Johan, 1244
Jessner, Kurt Joachim, 1605
Johnson, Burke Lamartine, 574
Johnson, James Paton, 665
Johnson, William Joshua, 1144
Johnston, Walter, 665
Jones, William Monroe, 1336
Jones, William Russell, 572
Jordan, James Ernest, 272
Jordan, William Mudd, 389
Jorgenson, Milton Cyril, 1145

K

Kalloch, Herbert Franklin, 952
Katz, Israel K., 860
Kaufmann, Eugene, 860
Kaveney, Irving Edward, 665
Keith, Frederick Scott, 744
Kelley, Erwin E., 1336
Kenworthey, William Bartle, 860
Kerns, Francis John, 490
Kerr, Alvin Robert, 389
Kerr, Frederick William Jr., 1336
Kimery, Philip Erasmus, 860
King, Allen Thurman, 50
King, Bernard Albert, 860
King, William Rufus, 952
Kinloch, Everett Starke, 665
Kinne, George Lyman, 744
Kirkpatrick, Lawrence Randolph, 272
Kissinger, Chester A., 50
Kistler, William Earl, 952
Kleinpell, Henry Herman, 272
Kline, Ernest Hall, 952
Kloepper, Victor Ferdinand, 1145
Klostermann, Louis Julious, 50
Knapp, John Christian, 490
Knight, James Wesley, 1605
Knowlton, Louis Gordon, 50
Knox, Charles Albert, 574
Knudson, Theodore James, 574
Kolipinski, Louis Xavier, 1336
Koons, Franklin Walter, 860
Kordenat, Ralph August, 859
Krahn, George Washington, 50
Krause, Charles Schurz, 50
Kremers, Alexander, 860
Kreuder, Henry, 861
Kriebs, Frank Joseph, 861
Krohn, Irwin Kjelland, 1336
Kyser, James Allen, 665

L

Laffoon, Clint A., 861
Lait, Francis M., 272
Lamb, Lloyd Lewit, 389
Langill, Morton Howard, 744
Langston, John Earl, 490
Lanham, Logan Taylor, 389
Larned, Samuel Francis, 1605
Lartigau, August Jerome, 574
Lassen, Otto, 864
Latham, Logan Lancaster, 50
Laufman, Isidor, 861
Lawson, Claudius Simuel, 490
Ledbetter, Franklin Carver, 490
Lee, Richard Nicholas, 1244
Lee, Walter Estell, 489
Le Fevre, Caroline Hurd, 50
Leonard, Bertram Bryant Jr., 490
Leonard, Lothair Lewis, 1605
Leslie, Frank Elliott, 664
Lewitin, Leo H., 1605
Lieberman, B. Albert, 50
Lief, Frederick Paul, 861
Lindquist, Nils S., 1336
Livingston, William Harold, 50
Lochhead, John McLean, 1244
Loescher, Walter Otto, 1244
Long, Merrill Harrison, 490
Loudon, John Parker, 50
Loughlin, John Joseph, 1336
Lowe, William Cook, 490
Lowry, Nelson Horatio, 1605
Lowther, Ray Roberts, 50
Lull, Clifford Bell, 1144
Lundoff, John Fritiof, 50
Lyda, Edwin Earle, 490
Lynch, Jerome Morley, 743
Lyon, Herbert Millard, 1336
Lyons, George Canfield, 1244

M

Mabry, Samuel A., 272
McAdams, Edward Calvin, 490
McAlister, Hector Clive, 861
McAnerny, John Henry, 1145
Macbeth, Harry Francis, 1145
McCabe, Walter Wallace, 50
McCall, John Turner, 272
McCandless, Oliver Howard, 490
McCarthy, Francis Xavier, 1434
McCarty, Virgil Warren, 50
McClelland, Joseph O., 1244
McClure, Charles Oscar, 50
McClure, John B., 491
McClure, Roy Donaldson, 664
McCoart, Richard Felix, 272
McCrea, Eppie Sabra 861
McCullough, Walter James, 861
McDavid, Jesse Taylor, 50
McDermott, William Carlton, 491
Macdonald, John Tremper, 744
Macdonald, William H., 744
McDougall, Dan Campbell, 272
McDowell, Hugh Chauncey, 1434
McGarvey, Samuel Curtis, 861
McGinn, Arthur Francis, 1434
McGuire, Evaline Merriam, 1336
McGuire, Philip John, 272
McKechnie, Frederick Joseph, 389
MacKedon, William Leo, 50
McKelvey, Gilbert Johnston, 271
McKelvey, Samuel Robert, 861
McLandress, Joshua Alexander, 491
McLaughlin, Clyde Lee Devillow, 272
McLean, Ray Allyn, 491
McMechen, Harry Blaine, 491
Macmurphy, George Yuille, 744
McNabb, John Wilson, 1145
MacNider, William de Berniere, 1521
MacPherson, Charles Herbert, 861
McPherson, William Ellsworth, 744
McSorley, Frederick William, 491
Maker, Lewis Edward: See
Maker, Louis Edward, 491
Maley, William Henry, 50
Mallow, Edgar Hayes, 491
Mann, Sigmund, 491
Marble, Robert Eugene, 861
Marchand, Malvin Carl, 1605
Mardis, Chauncey J., 50
Marrs, Frederick Addison, 1335
Martin, Edward, 861
Martin, Edward Gillette, 1144
Martin, Elmer Ellsworth, 861
Martin, George A. E., 1244
Martin, Leon Herbert, 1336
Martin Leonard James, 1244
Martin, Robert Michael, 1146
Mathis, James Edgar, 491
Matteson, Herman Howard, 574
Matthews, Jasper Thomas, 50
Maulding, Homer Ray, 389
Maurer, Frederick Henry, 665
Maybaum, Jacob Louis, 1521
Mayer, Martin, 662
Mayerberg, I. Wallace, 861
Mayes, Joseph Allen, 272
Melzer, Charles Sidney, 209
Mendenhall, William E., 574
Methvin, Samuel Robert, 209
Milbee, Robert S., 1605
Miles, Bertram James, 491
Miller, Lloyd T., 389
Miller, Raymond Eugene, 1058
Miller, Samuel W., 209
Milstead, Nathaniel Joseph, 209
Mitchell, Edwin Joseph, 861
Mitchell, James M., 1336
Mitchell, Ralph Wendell, 209
Mitchell, William Harvey, 744
Moberley, Paul Benton, 1244
Montgomery, Charles William, 665
Mooney, Charles Nell, 665
Moore, George Washington, 491
Moore, John Thomas, 665
Moore, Sair C., 389
Moore, Walter Scott, 209
Morden, Charles Bowman, 390
Morgan, Richard Theodore, 861
Morin, Jeremiah Joseph, 744
Morrill, Leonard Brown, 574
Morrison, Richard John, 1521
Morrow, Roy Darlington, 1521
Morrow, William Boyd, 209
Morton, Andrew Wade, 665
Motzenbecker, Peter Francis, 209
Moyer, Jonas J., 745
Mueller, George, 861
Murphy, Raymond James, 390
Murry, Abel Vance, 1244
Murtaugh, Edward G., 1146
Myers, Burton Dorr, 47
Myers, Henry Dey Sr., 491
Myers, John George Leonard, 665
Myers, Thomas Chalmers, 859

N

Needles, John Walter, 1435
Nelken, Bernard Earl, 1058
Nelson, John Elisha, 745
Neumann, William Henry, 665
Nicholson, Richard Eugene, 1146
Nicholson, William Rufus, 859
Noonan, James Joseph, 50
Noreonk, Ward Herman, 665
Nordenbrock, Gregory John, 861
Norris, Claude Bazil, 390
Nowers, Walter E., 1146
Nunemaker, Tunis, 1244

O

Oates, Theodore Kensell, 209
Oberholtzer, Edward James, 1146
O'Brien, Joseph Vincent, 50
O'Connor, Charles Emmett, 665
Oertel, Henry Benjamin, 666
Offner, John Edward, 272
Ogle, Clairel Leroy, 1146
Ognibene, Daniel Francis, 745
Olson, Andrew Allen, 1435
Onnen, John G., 861
Owen, Albert Simpson, 1146
Owens, Samuel Logan, 272

P

Page, Calvin Gates, 271
Page, Willifred, 574
Palisch, Gotthilf A., 574
Palmer, Paris A., 861
Paolazzi, Guido Erardo, 272
Parham, John Calhoun, 664
Parker, John E., 1435
Parker, John Woodcock Jr., 272
Parnell, Charles Nicholas, 666
Partch, Wallace Taylor, 743
Patrick, Fred Edward Jr., 1244
Paul, Samuel George, 1146
Payne, John Lewis, 491
Paynter, Lawrence W., 390
Peacock, Alexander Hamilton, 859
Perez, Manuel Aquilino, 745
Peters, Melvin Lester, 491
Petrik, Albert Charles, 491
Pfletschinger, Frederic, 491
Phillips, William David, 270
Pickett, Elizabeth Lovelace, 861
Pierce, Eben Douglas, 1146
Pike, Walter Franklin, 666
Pinner, Oskar, 491
Pittman, James Harry, 272
Plimpton, Robert Pearson, 574
Pollard, Willis John, 50
Potter, La Forest, 1521
Pratt, Caroline Georgine Kreiss, 1435
Pratt, Charles Augustus, 666
Pratt, Charles Minter, 272
Prendergast, John James, 861
Price, George Elmer, 1058
Price, James Woods, 270
Price, Willard Arthur, 272
Prince, John Hayes, 745
Prince, Norman Call, 491
Pritchett, James Henry, 272
Puckett, Charles Logan, 574
Pyles, John Wylie, 491

Q

Quatrano, Emanuel, 745
Quillian, Edgar Pierce, 1146
Quisling, Gunnar D., 390

Deaths—Continued

R

Radcliff, Ernest, 491
Rafferty, Theodore Newell, 1144
Rainone, Michele, 491
Rand, Morris, 1146
Ransom, William Walter, 272
Ransohoff, Nicholas Sigmund, 743
Rath, Otto A., 574
Rauschenbach, Charles William, 745
Rawlins, Elbert Van der Hayden, 491
Ray, Frank Leonard, 1146
Razinsky, Louis, 491
Reams, Bernard L., 390
Recca, John, 390
Reeve, Barney F., 272
Reed, Josiah Frederick, 1146
Regan, James Sutton, 271
Reid, Rufus Tinsley, 1605
Reiss, George Samuel, 390
Rey, Herman Frederic, 745
Reynolds, Clifton Johnson, 491
Rhodes, Thomas Alfred, 745
Richards, Robert Milton, 491
Richards, Tilcodore Wright, 664
Richardson, Elbert Leech, 1521
Richardson, Everett Wesley, 1146
Richmond, Henry Charles Tyler, 1211
Riemenschneider, Ernest W., 272
Rieser, Shirley Loeb, 666
Riess, John Turk, 1605
Riker, John Lawrence, 574
Riley, Josephine, 1058
Robbins, Charles Mortimer, 491
Roberson, Arthur William, 1058
Robinson, Burton Lowry, 1146
Robinson, Dana E., 1146
Robinson, William Arthur, 1058
Roilholm, Ansgar Kolhede, 491
Rogers, Herbert Wilson, 1211
Rollins, Russell, 745
Rosamond, John Stribling, 1521
Rosenow, Erwin R., 861
Rosler, John Bruner, 574
Rosner, John Dory, 390
Roth, Harry A., 1211
Roth, Jesse Henry, 1146
Roth, Lionel Andre, 1211
Roubinovich, Jacques, 493
Roush, Franklin Winbert, 1435
Rowe, William Guy, 272
Rozanski, Frank Stanley, 491
Runyan, William John, 745
Russell, William Logie, 489
Rutherford, Henry H., 208
Ryley, Harold William, 1058

S

Sage, Arthur Gray, 491
Sager, Edward Miller, 665
Sagert, Carl Martin, 1435
Salinger, Harry, 951
St. Clair, Frank Peter, 574
Salzman, Jacob Yetter, 1605
Samson, Leon Loyal, 272
Sanderson, Edward Theodore, 572
Sanger, Fenton Mercer, 1058
Sapplington, Samuel Watkins, 1434
Sargent, Laurrie Dodd, 666
Sargent, Susan Barbara Tallmon, 574
Saul, Henry Wilson, 272
Scanlan, Maurice, 745
Scarborough, James Warren, 1146
Scheele, Matthias Henry, 861
Scherer, Carl Ahrendt, 574
Schermerhorn, John Ralph, 666
Schetky, Martha G. K., 1146
Schierge, Ernest E., 1211
Schlosser, Charles Louis, 1146
Schmidt, Frederick Hermes, 666
Schneider, Charles Augustus, 272
Schnitter, Charles Henry, 1058
Schoemaker, Daniel Martin, 1434
Schoenfeld, John Burton, 390
Scholtes, Harry John, 271
Schottler, George Jacob, 745
Schreiner, Bernard Francis, 1213
Schuettler, Arthur Frederick, 390
Schwankhaus, Paul H., 666
Schwyzer, Gustav, 272
Scott, James R., 272
Scruggs, Elroy, 574
Scruggs, William Marvin, 1435
Seaman, James Alpheus, 1058
Sears, Clarence William, 1146
Shaklee, Alfred Ogle, 743
Shanahan, William Thomas, 208
Sharp, Robin Theodore, 273
Shaw, Arthur Ernest, 390
Sheehan, William Coronato, 745
Shellhorn, Bartlett Lockwood, 1435
Shelton, Hanson Penn, 861
Shimer, Floyd Aaron, 1146
Shoemaker, John Asher, 1211
Shorr, Abraham, 1435
Short, Willis Leland, 273
Shortell, Joseph Henry, 273
Shurtleff, Fred Cazeaux, 273
Shurtleff, George Frederick, 1435
Sibert, Aldo Vernon, 1146
Siler, Levi Steely, 666
Silkworth, William Duncan, 489
Simkins, Raymond, 1146
Simon, Carleton, 273
Sisk, Clarence Frank, 574
Skarstrom, William, 666
Slattery, George Norbert, 666
Smith, Charles Edgar, 1521
Smith, Claude A., 273
Smith, Edward Needham, 574
Smith, Egbert Livingston, 861
Smith, Festus Steely, 1146
Smith, George Milton, 489
Smith, Herbert Richard, 273
Smith, Rolla Lamar, 666
Smith, Thomas D., 1336
Smith, Wallace P., 574
Smith, Walter Fox, 273
Snow, Frank Whipple, 745
Snyder, Frank Hassan, 273
Somers, Charles Irving, 952
Sooy, John Lynch, 666
Southworth, Hamilton Munn, 1521
Souza, G. Paula, 1061
Spangler, Charles Anthony, 390
Spencer, Clay, 574
Spencer, Frank Daniel, 952
Spencer, Wilbur F., 952
Spier, Oscar Agnew, 666
Spottswood, Edward W., 1211
Spruce, Clifford Judson, 390
Spyker, John Huston, 666
Steedle, Joseph G., 666
Steele, Robert Lowry, 666
Stephenson, Frank Halleck, 666
Stern, Hyman Bernard, 1146
Stewart, Byron Lee, 273
Stiffey, Philip Ellsworth, 666
Stimpson, George Clyde, 952
Stocks, John Carter, 1521
Stoddart, James, 666
Stowell, Harold Bishop, 666
Strauss, Simon, 952
Strong, Sneed, 1521
Stuart, Albert Berry, 666
Sturdevant, Matthew Chafin, 1434
Suehs, Paul Ernest, 1435
Sullivan, Daniel John Jr., 273
Summerbell, Ferris, 666
Sutherland, Charles Goldie, 1111
Swan, Charles Arthur, 666
Swann, Joseph Charles, 491
Swanson, Robert Ralph, 1211
Sweeney, John Augustin, 273
Sweet, Austin Dryden, 1146
Swett, Eddy Benjamin, 273
Sybert, Alva Clyde, 574
Sykes, Everett William, 273

T

Taft, Robert Burbidge, 743
Tatum, William Jefferson, 491
Taussig, Joseph Bondi, 1146
Taylor, James Sherwood, 1435
Temple, Henry Curtis, 1211
Tetrick, Paul Wyckoff, 574
Thom, Douglas Armour, 270
Thomas, John M., 952
Thompson, Frederick E., 491
Thompson, Lunsford Michael, 273
Thompson, William C., 1058
Thomson, Alexander, 1058
Thrasher, A. Wade, 666
Tierney, Myles Joseph, 273
Timberlake, Gideon, 489
Tindall, Herbert Frederick, 574
Titsworth, George Ezra Jr., 745
Titus, Paul, 1058
Todd, Melvin Brian, 273
Tomlinson, Sir Percy, 662
Tomlinson, Robert Williams, 390
Townsend, Irving, 1435
Trice, John Lilly, 1435
Tucker, James Martin, 273
Tucker, Orman Alvaro, 1435
Tupper, Virgil L., 666
Turkus, Edward Newton, 745
Tyson, Robert Stafford, 574

U

Ultes, William Philip, 273
Utter, John Charles, 1058

V

Vance, Frederick Elmer, 1435
Van Doren, William, 1058
Van Slyke, William Henry, 1435
Van Vranken, Albert Benson, 1058
Vates, Charles William, 666
Verser, William Walter, 745
Viau, Benjamin Harrison, 1435
Victor, Agnes Caecilia, 208

W

Waddell, Jesse Clyde, 390
Wade, Charles Ernest, 574
Waldrep, Archie C., 1521
Wallace, Harry Clay, 1058
Wallace, James Ernest, 1435
Wallace, William Lindsey, 390
Waller, Benjamin S., 390
Walsh, Ford Cooper, 574
Walsh, Harry Edwin, 1435
Walters, John K., 1521
Warren, John Freemont, 1211
Watkeys, Frederick William, 745
Wayman, Armour Keach, 273
Webb, Roy Abner, 861
Weeter, Harry Montgomery, 47
Weiksner, Francis Alexander, 952
Weinberg, Frederick Julius, 666
Weinberger, Herbert Leon, 1213
Weiss, Solomon, 952
Welles, Charles Newton, 390
Wendt, Charles Isaac, 574
Werner, Emil August, 1211
Wheat, Thomas Adrian, 1211
Wheeler, Casablanca C., 390
Whelan, Raymond Edward, 1211
Whitacre, John Clifford, 1521
White, Estridge Peterson, 1435
White, Howard King, 390
White, Michael William, 390
Whitehead, Lawther Jackson, 952
Whitehouse, Eugene Dizer, 952
Whittaker, Howard, 390
Whitten, Kathryn Marion, 1435
Wickstrom, Albert M., 666
Wiencke, Edward John, 574
Wight, William G., 1521
Wilbourn, Champion Ellis, 273
Wiley, Edwin Hardin, 1521
Wilkin, W. Ernest, 1058
Willard, William Gleason, 1435
Williams, Earl T., 273
Williams, Rodney Ralph, 1058
Williamson, George H., 666
Williamson, Hervey Clock, 270
Williamson, Joseph Patterson, 390
Willis, Arthur Ponder, 390
Willis, Benjamin Coleman, 1146
Wilson, Charles Edward, 273
Wilson, Homer Smith, 1146
Wilson, M. Sylvia McQuitty, 390
Wilson, Sylvia McQuitty
see Wilson, M. Sylvia McQuitty
Winford, Thomas Edgar, 390
Winters, Christian, 390
Wisehart, William H., 861
Wittmer, John Jay, 1434
Wold, Alvin Pontus, 1435
Wolf, Herman Emil, 273
Wolfe, Edward Inman, 273
Wolfe, Thomas Lindly, 390
Wood, Howard J., 574
Wood, Thomas Denison, 489
Wood, William Alva, 273
Woods, Samuel D. E., 1146
Woolsey, Frank Mahlon, 1435
Worley, Charles Leslie, 390
Wright, Elbert Logan, 273
Wright, Elihu Burritt, 1211

Y

Yarbrough, Henry L., 574
Yerby, Leonard Donald, 390
Yoder, Paul Allison, 270
Youmans, Charles Emmett, 1435
Young, Edmond Brooks, 574
Young, Herbert George, 273
Young, James Lee, 1435
Yuska, Adam Leonard, 1435

Z

Zugg, Clarence Logan, 574

E

883F, hormonal cerebral vasopressor substance, 1326—E
E COMPOUND: See Cortisone
ECA: See Economic Cooperation Administration
EAR: See also Deafness, Hearing; Oto—
buzzing in, 1456
clicking in, 607
flushing of, in man, 1272
inflammation, external otitis, 1273
Middle, Infection of: See Otitis Media
surgery, fenestration operation, 977
surgery, fenestration operation, long term results, [Adin] 674—ab
surgery for otosclerosis, [Cawthorne] 1079—ab
vestibular function after streptomycin toxemia, [Chase] 870—ab
EARNINGS: See Income; Wages
EARTHQUAKES
victims, aided by WHO, 740
EATING and Cooking Utensils: See Cooking and Eating Utensils
ECHINOCOCCOSIS
cerebral hydatid cyst, [Arana Iniguez] 1451—ab
hydatid cyst in parametrium, Turkey, 671
hydatid cyst of lung, treatment, [Armand Ugón] 874—ab
ECLAMPSIA
preeclampsia, paper chromatography of urine in, [Zilliacus] 1082—ab
synergistic action of pituitary hormones in relation to, [Govan] 68—ab
ECONOMIC COOPERATION ADMINISTRATION (ECA)
survey of medical school of Formosa by, 391
Washington University teaching program at Bangkok, 265
ECONOMICS, MEDICAL: See Insurance, sickness; Medical Service; Medicine, state
A.M.A. Bureau of Medical Economic Research: See American Medical Association
ECZEMA
Contact: See Dermatitis venenata
treatment, antihistamine, fatal pancytopenia after, [Glassmire] 756—ab
EDEMA: See also Ascites; Lymphedema; under organs and regions as Lungs
angioneurotic, swollen lips, 76
etiology: prolonged use of hypnotics, [Krisch] 218—ab
General or Universal of Newborn: See Erythroblastosis, Fetal
in pregnancy, mercurial diuretics advisable to control? 415
EDIN Electrocardiograph, Model 220, 1513
EDUCATION: See Children, school; Schools; Students
Audiovisual: See Moving Pictures; Television
Health Education: See Health
Higher: See University
of Nurses: See Nurses and Nursing
EDUCATION, MEDICAL: See also Graduates; Schools, Medical; Students, Medical; University
advancement of, A.M.A. President's page, 1238
A.M.A. Council on: See American Medical Association
A.M.A. Reference Committee on, report, 839
American Medical Education Foundation, 258—E; 262; 376—E; (medical societies rally to support) 377—E; (contributions deductible from income tax) 655—E; (American College of Radiology contribution to) 831; (A.M.A. resolution on) 850; (Woman's Auxiliary gift to) 942; (report) 944; (R. F. Staudacher appointed executive secretary) 1138; (urge physicians to support) 1236—E; (President Cline's Page) 1238; (list of contributors) 1327—E; 1329
Commission on Financing Higher Education opposes federal aid, 376—E
continuous, 33—ab
Course: See subhead: Graduate Course

EDUCATION, MEDICAL—Continued
Fellowships: See Fellowships
Financial Support: See Schools, Medical
graduate, clearinghouse for, Mass., 1239
graduate, continuation courses at Wayne U., Mich., 1517
graduate continuation courses, July 1, 1951 to Jan. 15, 1952, 563—E; *581
graduate, in Mexico, [Jordan] 1340—C (reply) [A.M.A. Council on Medical Education] 1340—C
graduate program in Charleston, W. Va., 43
graduate, U. S. Army program extended, 1523
Internship: See Interns and Internship
National Fund for Medical Education 258—E; 262; 376—E; (total contributions rec'd; grants to 79 medical schools) 1236—E
Pan American Congress on, 44
Premedical: See also Basic Science
premedical requirement of licensing boards, *354; *357
preprofessional survey: progress report, [Carman] *81
requirements of licensing boards, *354; 358
Residents; Residencies: See Residents and Residencies
Scholarships: See Scholarships
surgical training, [Lehman] 279—C; [Boyd] 1151—C; [Gorrell] 1340—C
survey of; basic values in Subcommittee on Preprofessional Education of Survey of Medical Education, [Severinghaus] *79
teaching dermatology and syphilology, A.M.A. Section resolution on, 1040
team for Japan, 570
World Conference on in 1953 to be held by World Medical Association, 656
Yeshiva University Medical Education Council, New York, 660
EFFORT: See also Exercise
Angina of: See Angina Pectoris
thrombosis of axillary vein with pulmonary embolism, [Barnett & Levitt] *1412
EGGS: See also Ovum
cortisone and virus concentration in, [Kilbourne] 215—ab
propagation of pathogenic fungi in yolk sac, [Brueck] 681—ab
turkey, salmonellosis outbreak from, Minn., 568
EGYPTIAN
medicine, first great Pyramid, 561—ab
ELASTIC Stockings: See Hosiery
ELBOW: See also Humerus
fractures in children, [Blount & others] *699
ELDERLY: See Old Age
ELECTRIC: See also Electro—; Photoelectric
Hearing Aids: See Hearing Aids
potentials in death, 1366
shock treatment, [Barhash] *1586
shock treatment, urge its use at base hospitals, [Campbell] *92
shock treatment with tantalum plate in skull, [Osmond] 1167—ab
stimulation of phrenic nerve for asphyxia neonatorum, [Cross] 1449—ab
Welding: See Welding
ELECTROCARDIOGRAM: See Heart
ELECTROCHEMOGRAPHY
of heart, Italy, 1061
ELECTROCOAGULATION: See Diathermy
ELECTROCOMA: See Electric shock treatment
ELECTROENCEPHALOGRAPHY: See Brain
ELECTROKYMOGRAPHY: See Heart
ELECTRON Microscopy: See Microscopy
ELECTROPYREXIA: See Fever, therapeutic
ELECTROSTIMULATION
in respiratory emergency, [Zimmerman] *1025
ELECTROSURGERY: See Diathermy
ELECTROTHERAPY: See Electric shock treatment
ELECTROTHERMY: See Diathermy
ELEPHANTIASIS: See Lymphedema
EMBOLECTOMY
surgery of arteries, Belgium, 670
EMBOLISM: See also Thrombosis
air, glass float device to prevent in transfusions under pressure, [Wilkinson] *1318
diagnostic drifts, deceptions and misses, [Neal] *539
episodes in patients treated with cortisone and ACTH, [Coste] 1617—ab
greatest interval reported between thrombophlebitis and, 1619
in children, [Decamp] 1530—ab
paradoxical, 1619
prevention, [Loewe] 869—ab; [Thies] 1173—ab
pulmonary, bilateral femoral vein ligation to prevent, [Erb] 1613—ab
pulmonary, dicumarol alone or with heparin for, [Armas Cruz] 409—ab
pulmonary, "effort" thrombosis of axillary vein with, [Barnett & Levitt] *1412
sensitized clotting time, simple bedside test, [de Takats] *1370
treatment, [Thies] 1173—ab
treatment, ligation and heparin, [Ravdin] 966—ab
EMBRYO: See Fetus; Ovum
EMERGENCY
Medical Service: See also First Aid
Medical Service, A.M.A. Council on National Emergency Medical Service: See American Medical Association
medical service, A.M.A. resolution on, 934
medical service, disaster blueprint for industrial physician, (Council report) 1064
medical service, (24 hour) established, W. Va., 206
treatment of compound fractures, [Key] *1091
EMESIS; EMETICS: See Vomiting
EMIGRÉ Physicians: See Physicians, foreign
EMOTIONS: See also Melancholia; Mental Depression; Mental Hygiene
Angry Boy, (film review) 1440
"trap" headache, [Bostock] 604—ab
EMPLOYEES: See Industrial Health
EMPLOYMENT Opportunities for Physicians: See Physicians, positions open
EMPYEMA
after penicillin therapy, [Arce] 1170—ab
in infants and children, [Frazier & Davis] *247
postpneumonic, streptokinase-streptodornase in, [Tillet] 964—ab
ENCEPHALITIS: See also Encephalomyelitis
epidemics in Australia, 669
etiology: injection of whooping cough vaccine, 510
ENCEPHALOGRAPHY: See Brain, roentgen study
ENCEPHALOMYELITIS
equine, in mice, ACTH effect on [Milzer] 284—ab
vaccinal, Turkey, 577
ENCEPHALOPATHY: See Brain disease
ENCOPRESIS: See Feces incontinence
ENDAMEBA Infection: See Amebiasis
ENDARTERIECTOMY
surgery of arteries, Belgium, 670
ENDOCARDITIS
bacterial, penicillin resistant; treated by combined penicillin and streptomycin, [Gates] 1165—ab
bacterial subacute, [Garretón Silva] 685—ab; [Reynolds] 1442—ab
bacterial subacute, aureomycin or chloromycetin for, [Kane] 1348—ab
bacterial subacute, penicillin alone or with streptomycin for, [Staehlin] 1170—ab
Brucella abortus, [Hart] 1449—ab
enterococcic, penicillin and streptomycin combined in, [Robbins] 752—ab
lenta, streptomycin and massive doses of penicillin, [Kleinfelder] 1173—ab
staphylococcic, antibiotics in, [Levinson] 870—ab
streptococcus fecalis, treatment, [Loewe] 1158—ab
ENDOCARDIUM
fibroelastosis, [Collier] 406—ab
sclerosis, [Edmonds] 1612—ab
ENDOCRINE GLANDS: See also under names of specific glands
disturbances, exophthalmos due to, Belgium, 670
disturbances in scleroderma, [Gil] 1257—ab
patterns (4 types) in term pregnancies following abortion, [Jones & Delfs] *1212
ENDOMETRIOSIS
[Arenas] 408—ab
hot flashes and, 608
perineal, [Dubas] 683—ab
ENDOMETRITIS
chronic, [Dumoulin] 1540—ab
ENDOMETRIUM
Aberrant: See Endometriosis
tuberculosis, dihydrostreptomycin and *p*-aminosalicylic acid for, 1177
tumors, sarcoma, [Corscaden] 1442—ab
ENDOSCOPY
pharyngoesophageal perforation in, [Knox] 875—ab
ENEMA: See also Cathartics
regular periodic, in spinal cord injury, [Pollock & others] *1556
ENERGY: See Activity; Effort
Atomic: See Atomic Energy
Metabolism: See Metabolism, basal
Value of Food: See Calories
ENGLAND: See British
ENLISTED Men or Women: See Armed Forces; Medical Preparedness; Servicemen
ENTERGASTRONE
treatment of peptic ulcer, [Bone] 61—ab
treatment of peptic ulcer ineffective, [Wollum] 1532—ab
ENTERITIS: See Gastroenteritis; Intestines, inflammation
ENTEROBIASIS: See Oxyuriasis
ENURESIS: See Urine incontinence
ENZYMES: See also under specific names as Cholinesterase; Hyaluronidase
pancreatic, and opiates, 1032—E
EOSINOPHILS
circulating, fall of, after giving epinephrine, [Braunsteiner] 1541—ab
Löffler's syndrome, in twins [Shechter & Graub] *1420
EPIDEMIC JAUNDICE: See Liver Inflammation
EPIDEMICS: See Communicable Diseases; under names of specific diseases
Prevention: See Immunization; Vaccination
EPIDERMIS: See Skin
EPIDERMOPHYTOSIS interdigitalis: See Dermatophytosis
EPILEPSY
behavior disturbances in children with, [Bradley] *436
centenary of Dr. Adolph Sell, Denmark, 1607
contraindication for intravenous use of alcohol in surgical patient, [Kark & Sokol] *21
diagnosis and treatment, course in, Massachusetts, 659
focal, surgical treatment, 820—E
heredity of, as told by relatives and twins, [Lennox] *529; (correction) 662
status epilepticus coincident with use of ACTH, [Dorfman & others] *25
treatment, cortical excision, [Walker] 1075—ab
treatment, surgical, [Guillaume] 1084—ab
Western Institute on (3rd), 569
EPINEPHRINE: See also Arterenol (norepinephrine)
aerosol treatment of dyspnea in cardiac patient, [Monfardini] 409—ab
circulation, to detect with regitine in hypertension, [Emlet & others] *1383
hormonal cerebral vasopressor substance, 1326—E
treatment, fall of circulating eosinophils after, [Braunsteiner] 1541—ab
EPIPHYSIS
arrest, leg lengthening, [Allan] 69—ab
EPISPADIAS
surgical treatment, Denis Browne technic; [Burns & Harvard] *421; *422
EPITHELIALIZATION
stimulation, 1089
substance used to stimulate fibrous tissue: dicetyl phosphate, 509; (reply) [Berman] 1546
EPITHELIOMA
Chorioepithelioma: See Chorionic Carcinoma
self-healing, of skin, [Sarian] 753—ab
EPONYMS
Adie's syndrome, [Wartenberg] 1152—C
EPSOM Salts: See Magnesium sulfate
EQUIPMENT: See Apparatus; Medical Supplies
ERB-Goldflam's Disease: See Myasthenia Gravis
ERGOT
dihydrogenated alkaloids of, in peripheral vascular disease, [Popkin] 1344—ab
ERGOTAMINE TARTRATE
with caffeine, name recognized by Council, 927
ERUPTIONS: See also Herpes Measles; Scarlet Fever
diaper rash, 416; (reply: suggest methionine treatment) [Lawson] 1546
ERYSIPELAS
streptococcus needed, [Reimann] 1151—C
ERYTHEMA: See also Lupus erythematosus
gluteale (diaper rash), 416; (reply: suggest methionine treatment) [Lawson] 1546
multiforme exudativum (Stevens-Johnson syndrome), 1424—E; [Ashby] 1616—ab
Nodosum (Valley Fever): See Coccidioidomycosis
ERYTHREDEMA
mercurials cause of acrodynia, [Warkany] 600—ab; [Peters] 971—ab
pink disease in older children, [Cheek] 1267—ab
role of adrenal in pink disease, [Williams] 1267—ab
ERYTHREMIA: See Polycythemia
ERYTHROBLASTOSIS, FETAL
familial, and pregnancy, [Dahr] 1355—ab
hemolytic disease of newborn, [Mellone] 1359—ab
in infant, 1271
in newborn, exchange transfusions or blood transfusions for, [Kölbl] 1541—ab
Kell antigen as cause of stillbirths, [Prokop] 1539—ab
Price-Jones curve in hemolytic disease of newborn, [deVries] 503—ab
ERYTHROCYTES
Count: See Anemia, Pernicious; Polycythemia
Sedimentation: See Blood sedimentation
Sickling: See Anemia, sickle cell
volume and ACTH, [Garcia] 1447—ab
ESOPHAGOSCOPY
curare as adjunct to relaxation in [McLaurin] 1444—ab
ESOPHAGUS
anomalous lobe of lung arising from, [Gans] 965—ab
atresia (congenital), [Abbott] 403—ab
compression in vascular anomalies, [Gross] 215—ab
Fistula: See Fistula
obstruction (complete) after Serutan ingestion, [Hinkel] *1129
perforation in endoscopy, [Knox] 875—ab
rupture (spontaneous), [Flipse] 402—ab

ESTRADIOL
benzoate-U.S.P., NNR., 1134
pellet implantation in prostate cancer, [Okie] 680—ab
treatment in sex disturbances, [Kaufmann] 1355—ab
ESTROGENIC SUBSTANCES: See also Estradiol; Estrone
Diethylstilbestrol: See Diethylstilbestrol
hot flashes and endometriosis, 608
treatment, bilateral cancer of male breast after, [McClure & Higgins] *7; [McClure] 1608—C
treatment of acne vulgaris, [Andrews & others] *1107
treatment of advanced mammary cancer, Council report, 471
treatment of bleeding fibroid uterus, 691
treatment plus castration in breast cancer, [Nathanson] 1263—ab
treatment, small doses cause cancer of breast? 222
ESTRONE (theelin)
U.S.P., N.N.R., (Bio-Intrasol) 1134
ETHER
effects in producing vasodilation, [Reedy] 678—ab
ETHICS: See Morals
ETHICS, MEDICAL: See also Medicolegal Abstracts at end of letter M
A.M.A. Judicial Council report, 842
International Code of, established by World Medical Association, 657; 793—ab
President's page, 822
ETHYL AMINOBENZOATE (benzocaine)
dermatitis from local anesthetics, [Lane & Luikart] *718
ETHYL BISCOUMACETATE (tromexan)
experimental and clinical properties, [Burke] 283—ab
ETHYL CHLORIDE
spray, treatment of Rhus dermatitis, [Hoagland & others] *612
ETHYL VANILLATE
treatment of disseminated histoplasmosis, [Christie] 215—ab
ETHYLENE DICHLORIDE
plastic cement: fatal poisoning; use warning on label! [Lochhead & Close] *1323
*d*ETHYLSTILBESTROL: See Diethylstilbestrol
EUROPE
European Congress of Rheumatology, second, Spain, 1241
health program for, 1055
EUSTACHIAN TUBE
clicking in ears, 607
EVACUATION of Wounded: See Korean War
EVIAN International Medical Congress (3rd) Paris, 1437
EVIDENCE: See Medicolegal Abstracts at end of letter M
EXAMINATIONS: See also Basic Science; Licensure; Physical Examination
newer techniques for, 201—E
EXANTHEMS: See Eruptions
EXCHANGE Transfusion: See Blood Transfusion
EXERCISE: See also Activity; Athletics; Effort; Golf
therapeutic, for paraplegic patient, [Dinken] *232
therapeutic, in asthma, [Baker] 214—ab
therapeutic, in industrial orthopedics, [Billig] *1179
therapeutic, Kegel's, of pubococcygeus muscle for stress incontinence, [Counsellor] *27; [Kegel] *915
therapeutic, Resistive Exercise in Physical Therapy for Thoracoplasty, (film review) 738
therapeutic, Silicone Bouncing Putty, 817
therapeutic, Thera-Plast, 817
EXERTION: See Effort
EXHIBITS: See Health
A.M.A. Scientific Exhibit: See American Medical Association
EXOPHTHALMIC GOITER: See Goiter, Toxic
EXOPHTHALMOS: See also Goiter, Toxic
etiology: endocrine disturbances, Belgium, 670
malignant, irradiation of pituitary in, [Beierwaltes] 1533—ab
prognosis after thyroidectomy; prevent conjunctival irritation, 508
EXORBIN N.N.R., (Ayerst, McKenna & Harrison) 1134
EXPECTORATION: See Sputum
EXPERIMENTATION: See Animal Experimentation; Research
EXSANGUINATION Transfusion: See Blood Transfusion
EX-SERVICE Men: See Veterans
EXTREMITIES: See also Arms; Foot; Legs
Amputation: See Amputation
Blood Supply: See Blood Vessels disease (peripheral); Raynaud's Disease
"growing pains": limb pains in children, [Naish] 1614—ab
Paralysis: See Hemiplegia; Paraplegia
EYEGLASSES: See Glasses
EYELASHES
trichiasis, 1178
EYES: See also Astigmatism; Blindness; Choroid; Conjunctiva; Cornea; Lens, Crystalline; Ophthalmology; Vision
Accommodation: See Night Blindness
"bags" under, cause of, (reply) [Holden] 692
"bags" under, surgical relief, (reply) [Barnes] 692
color, corneal tattoo to restore, [Pickrell] 1350—ab
complications in leptospiroses, [Doret] 970—ab
Disease: See also Conjunctivitis
disease, choroideremia, 3 cases in 3 generations, [Lowe] 289—ab
disease, first clinical experiments with cortisone, Switzerland, 213
disease, local and systemic cortisone in, [Leopold] 1069—ab
disease, ophthalmic ointment base, 691
disease, placental graft in, Turkey, 577
effects of rubber glove powders on, [Schwartz] 1443—ab
emergencies in industry, first aid treatment by physician, [Knapp] *12
foreign bodies, first aid treatment by physician, [Knapp] *12
fundus, routine examination in toxemias of pregnancy, [Gordon] *810
infection from cornstalk, 1087
injuries in welders, 417
manifestations of multiple sclerosis, [Yaskin] 1443—ab
Protrusion: See Exophthalmos
See Better: Healthy Eyes (film review), 58
"split eye" in poultry, relation to hepatitis in man, 1544
EYESIGHT: See Vision

F

FACE: See also Head; Jaws; Lips; Nose
flushing of, in man, 1272
idiopathic (fatal) granuloma of facial tissues treated with cortisone, [Moore] 1445—ab
Mask: See Mask
pigmentation after lacerations, 1177
FACTORY WORKERS: See Industrial Health; etc.
FALLOT, Tetralogy of: See Heart anomalies
FAMILIES: See also Children; Infants; Maternity; Paternity
Family Life, New York, 205
frequent urination in siblings, 1364
Palmour Street: Study in Family Life (film review), 1255
FARM: See Rural Communities
FASTING: See Hunger
FAT: See also Lipids; Lipophagia; Obesity; Oil
accumulations, localized, 978
emulsions of high caloric potency, intravenous use, [Shaffroff] 499—ab
Subcutaneous, Disease of: See Panniculitis
FATHER: See Paternity
FECES: See also Manure; Meconium
defecation after spinal cord injury, [Pollock & others] *1556
foul stools in young children, 299
incontinence, psychic, [Calzada] 1170—ab
Loose Stools: See Diarrhea; Dysentery
physiological basis for preserving fecal continence after resecting rectum, [Gaston] *1486
reflex defecation, stimulated by stretching anus with patient's finger and rubber cot, [Pollock & others] *1557
sensitivity of rectum and anal continence, [Goligher] 1080—ab
FECUNDITY: See Fertility
FEDERAL: See also United States
Agencies, reorganization, 39
Communications Commission, regulations for diathermy equipment, 481
Control of Medicine: See Medicine, state
Funds, Grants, Aid: See United States Government
Government: See United States
Income Tax: See Tax
Legislation: See Laws and Legislation, federal
Security Agency: See Health, U.S.P.H.S.
FEDERATION: See also list of societies at end of letter S
of State Medical Boards resolution on foreign graduates, *369
FEEBLEMINDED: See Idiocy; Mental Defectives
FEEDING: See Diet; Food
Infant's: See Infants
Tube: See Tube Feeding
FEES: See also Rebates; Wages
basic science, *372
license, *357; *360; *361
physicians', form used for bills for civilian medical care of Army personnel, 1059
physicians' statements should be itemized, [Miller] 1608—C
FEET: See Foot
FELLOWSHIPS: See also Scholarships
American Association of Psychiatric Clinics for Children, in child psychiatry, 741
American Cancer Society, 1519
FELLOWSHIPS—Continued
A.M.A.: See American Medical Association
fund for Filipino doctors, 1603
Heart Association of Southeastern Pennsylvania (first) 1518
in dermatology available at Washington University, St. Louis, 1429
in ophthalmology, Pa., 1141
Koessler, available, Illinois, 1331
National Foundation for Infantile Paralysis, predoctoral, fellowships, 662
Park (William H.) awarded, 1429
Reader (Ruth Berger) renewed, Illinois, 1239
Smith Foundation for Plastic Surgical Research, Texas, 739
World Health Organization, 661
FELTY'S Syndrome: See Arthritis, Rheumatoid
FEMUR
Judet's operation: head of femur replaced by acrylic prosthesis, Belgium, 394
FENESTRATION Operation: See Ear surgery
FERMENTS: See Enzymes
FERRIC; Ferrous: See Iron
FERTILITY: See also Spermatozoa; Sterility
semen studies and, [Tyler] *307
FETUS: See also Infants, Newborn; Placenta; Pregnancy
conglutinating activity in serums, [Seelich] 1269—ab
Death of: See also Stillbirth
death of, 690
effect of essential hypertension in mother, [Nordenstrahl] 1268—ab
Erthyroblastosis: See Erythroblastosis, Fetal
malformation, causes, 1192—ab
Position of: See Labor, presentation
Premature: See Infants, premature
Rh factor in: See Rh Factor
suicide: premature separation of placenta, [Chalmers] 969—ab
Superfetation: See Superfetation
twin fetuses in fetu; retroperitoneal teratoma, [Gross] 1161—ab
FEVER: See also Rheumatic Fever; Scarlet Fever; Typhoid; Typhus; Yellow Fever
cat-scratch, [Thelin] 71—ab; [Greer] 1261—ab
Childbed Fever: See Puerperal Infection
diagnostic drifts, deceptions and common misses, [Neal] *537
Glandular: See Mononucleosis, Infectious
hyperthermia, during anesthesia in infants and children, [Bigler & McQuiston] *551
Japanese River: See Tsutsugamushi Disease
Malta: See Brucellosis
Parrot: See Psittacosis
Pomona: See Pomona Fever
Q: See Q Fever
Rocky Mountain Spotted Fever: See Rocky Mountain Spotted Fever
therapeutic (blanket method) plus penicillin in neurosyphilis, [Epstein] 751—ab
therapeutic, Commonwealth Therapeutic Units, 1235
therapeutic, for essential hypertension, 1365
Undulant: See Brucellosis
Valley: See Coccidioidomycosis
FIBROPLASIA, Retrolental: See Lens, Crystalline
FIBROSITIS: See Myositis, rheumatoid
FIGHTING: See Boxing
FILIPINOS: See also Philippine Islands
doctors, Fellowship fund for, 1603
hookworm anemia in children, [Stransky] 287—ab
FILMS: See Moving Pictures
FINGERS: See also Hand
Abnormalities: See Arachnodactyly
humeroscapular periarthritis: autonomic function tests, [Bergholt] 1453—ab
injuries with loss of tips; repair and results, [Langemann] 1359—ab
interdigital syphilitic lesions simulating dermatophytosis, [Dexter] 1342—ab
numbness and tingling, 980
FINLAND
mentality of Danes compared with Dutchmen and Finns, Denmark, 276
FIRE: See Burns
FIRST AID: See also Emergency Medical Service
training, disaster blueprint for industrial physician, (Council report) 1064
treatment by physician in eye emergencies in industry, [Knapp] *12
FISH (John W.) Lecture: See Lectures
FISHER Memorial Award: See Prizes
FISTULA
mercury lost in gastrointestinal tract, [Cantor] *560
tracheoesophageal, and congenital esophageal atresia, [Abbott] 403—ab
treatment, human placenta in, Colombia, 56
FITNESS: See Physical Fitness
FITS: See Convulsions
FLATFOOT: See Foot
FLATULENCE
excess gas in intestine, 691
FLAVONES: See Rutin
FLEAS
transmission of rabies, 1175
FLIGHT: See Aviation

FLOAT
glass, to prevent air embolism in transfusion under pressure, [Wilkinson] *1318
FLOODS
Kansas-Missouri, 1431; 1436
"FLU": See Influenza
FLUIDS: See also Milk; Water
Body: See Ascites; Cerebrospinal Fluid; Saliva
intravenous use in poliomyelitis advisable? 297
FLUKES: See Schistosomiasis
FLUORINE
dentifrice containing, 1176
fluoridation of water, (Kansas) 41; (Nebraska) 856
in public water supplies, 607
FLUOROSCOPY: See Roentgen Rays
FLUROLAMP, 1325
FLUSHING
of face and ears, in man, 1272
FLYERS; Flying: See Aviation
FLYNN, JOHN, death of first "flying doctor," Australia, 669
FOLIC ACID: See Acid, folic
FOLVITE sodium with benzyl alcohol 1.5%, N.N.R., (Lederle) 1134
FOOD: See also Cereal Products; Diet; Eggs; Fruit; Meat; Milk
allergy, atopic dermatitis, ACTH for, [Randolph] 676—ab
aluminum cooking utensils used in preparing, A.M.A. Council statement, 477
A.M.A. Council on Foods and Nutrition: See American Medical Association
Appetite for: See Appetite
Canned: See Infants, feeding
chemical additives in, (Council statement) 731
Deficiency: See Nutrition
Energy Values: See Calories
frozen, 37—E
frozen orange juice concentrate, A.M.A. Council report, 35; 37—E
Garbage: See under Refuse
Hunger for: See Hunger
Infants: See Infants, feeding
Law Institute, A.M.A. Board authorizes Dr. Wilson to become public trustee of, 1328
meal, instilled into stomach, gastric function after, [Hunt] 1615—ab
Poisoning: See also Gastroenteritis; Lathyrism
poisoning due to Bacillus cereus Denmark, 1149
storage, The Stowaway, (film review) 1526
toxic residues on, 492
U.S. Food and Drugs commissioner (Paul B. Dunbar) retires, 746
wholesome, statement on by A.M.A. Council, 477
FOOT: See also Orthopedics; Shoes
Athlete's: See Dermatophytosis
flatfoot (spastic peroneal) and tarsal anomalies, [Webster & Roberts] *1099
repair of surface defects, [Brown & Fryer] *628
tingling of soles, 879
Warts on: See Verruca, plantar
FOOTBALL
fatal injuries in, [Gonzales] *1506
field, manure on definitely contraindicated; possible source of tetanus, 690
injury, myositis ossificans after, 76
FOOTWEAR: See Hosiery; Shoes
FORCEPS
Obstetric: See Labor
FOREARM: See Arms
FOREIGN BODIES
mercury lost in gastro-intestinal tract, [Cantor] *560
phytobezoar, Turkey, 1150
Serutan obstructs esophagus, [Hinkel] *1129
FOREIGN COUNTRIES: See Asia; Europe; under names of specific countries as India
Graduates from: See Physicians, foreign
Medical Schools in: See Schools, Medical
Students: See Students
FORENSIC Medicine: See Medical Jurisprudence
FORMOSA
Medical School of, ECA survey, 391
FORTHANE: See Methyl Hexane Amine
FOUNDATIONS
American Medical Education Foundation, 258—E; 262; 376—E; (medical societies rally to support) 377—E; (contributions deductible from income tax) 655—E; (American College of Radiology contribution to) 831; (A.M.A. resolution on) 850; (Woman's Auxiliary gift to) 942; (report) 944; (R. F. Staudacher appointed executive secretary of) 1138; (physicians urged to donate $100 to) 1236—E; (President's Cline's monthly message) 1238; (list of contributors) 1327—E; 1329
Arthritis and Rheumatism, (fellowships) 568
Audiology Foundation grants-in-aid, Illinois, 658
Black-Stevenson Cancer Foundation awards funds, 741
FOUNDATIONS—Continued
Collins, (Joseph), (fund to aid medical students) 267
Health Information, (begins community studies) 42; (plans broadcast) 207; (study of medical service plans) 1332
Hematology Research, 661
Hyde (Lillia Babbit), 661
McGregor Fund grants, Mich., 738
Markle, (basic values in professional education), [Severinghaus] *79
National Foundation for Infantile Paralysis, 661; (predoctoral fellowships) 662; (note of appreciation) [O'Connor] 672—C; (A.M.A. Board of Trustees action on) 1328; (grant for research on bulbar poliomyelitis at U. of Buffalo) 1517
National Fund for Medical Education, 258—E; 262; (A.M.A. resolution on) 850; (total contributions rec'd; grants to 79 medical schools) 1236—E
National Muscular Dystrophy Foundation Committee, 740
Pinel, Inc., Washington, 740
Research Foundation, Chicago, to distribute BCG vaccine, 1142
Research Foundation of State University of New York, 205
Rockefeller, (grants) 267; (divisions merge) 949
Runyon (Damon) Memorial Fund for Cancer Research, 1140
Smith (Ferris and Florence) Foundation for Plastic Surgical Research, Texas, 739
Solomon, gift to Hektoen Institute, Illinois, 1239
Sugar Research Foundation grants, 740
Tennessee Hearing and Speech, 1430
Tuberculosis Foundation of Virginia, (receives $200,000 donation) 385
Werthan, 206
FOUTS, ROY W.
A.M.A. resolution on death of, 261; 831
FOWL: See Chickens
FOWLER'S Solution: See Potassium arsenite
FRACTURES: See also Orthopedics; under names of specific bones
Colles: See Radius
compound, treatment in this antibiotic age, [Key] *1091
roentgen apparatus attachable to Bell fracture table, [Runge & others] *1026
treatment, traction device for forearm, [Wichern & Bacon] *1233
FRAMBESIA: See Yaws
FRANCE: See French
FREEZING: See Cold; Frostbite
Quick-Frozen Food: See Food
FRENCH
medical mission, Colombia, 672
stamps honors military medicine, 1240
FRIDERICHSEN-Waterhouse Syndrome: See Waterhouse
FRIEDENWALD Medal: See Prizes
FRIEDMAN Test: See Pregnancy diagnosis
FRIENDS, Society of: See Quakers
FRIGIDITY
treatment with testosterone and psychotherapy, 1273
FROSTBITE
acute, anticoagulants for, [Theis & others] *992
FROZEN
Foods: See Food
FRUIT: See also Apples; Grapefruit; Orange
juices and atomic burns, 508
Monarch Brand Dietetic Pack, 108; 477
Pectin: See Pectin
FUCHS, JULIUS
orthokinetics, treatment of hypertrophic osteoarthritis, 415
FUCHSIN
basic, staining fungi in skin scraping with, in ringworm and moniliasis, [Kligman & Mescon] *1563
FUNDS: See Foundations
FUNDUS oculi: See Eyes
FUNGI
collecting specimens for laboratory demonstration, isolation [Ajello] *1581
eye infection from cornstalk: Paecilomyces isolated, 1087
Infection with: See Mycosis
medical mycology in Great Britain, [Georg] 395—C
microbial metabolites and plant welfare, 929—E
staining, in skin scraping with basic fuchsin, [Kligman & Mescon] *1563
FURUNCULOSIS
hyperglycemia and, 1620
treatment of recurrent boils, 765
FUSOSPIROCHETOSIS: See Angina, Vincent's

G

GP: See Journals
GALLBLADDER: See also Bile Ducts
calculi, 4 operations for, 297; (reply) [Ravenna] 980
calculi, recurring, 1089
GALLBLADDER—Continued
cancer and bile ducts, [Wood] 964—ab
excision, lung changes after [Rudnikoff & Headland] *989
inflammation, acute cholecystitis, [Buxton & others] *301
roentgen study, cardiac accidents following vasopressin injection (pitressin), [Slotnik & Teigland] *1126
GALLI-MAININI Test: See Pregnancy diagnosis
GALLSTONE: See Gallbladder, calculi
GAMMA
Benzene Hexachloride, N.N.R., 927
GANGLION (nerve)
stellate block, death after, [Pallin] 500—ab
stellate block in cerebral thrombosis, [Sussman] 869—ab
stellate block with procaine for shoulder-hand syndrome, [Swan & McGowan] *774
thoracic sympathetic, x-ray irradiation for hypertension, [Wolf] 1540—ab
GANGLION (tumor)
on wrist, 222; (reply) [McKeever] 692
GANGRENE
gas, differential diagnosis; gas in tissues, [Sättler] 1164—ab
GARBAGE: See Refuse
GAS: See Carbon Dioxide; Helium; Oxygen
Distention of Intestines or Stomach: See Flatulence
Gangrene: See Gangrene
GASTRECTOMY: See Stomach, surgery
GASTRIC: See Stomach
Ulcer: See Peptic Ulcer
GASTRITIS: See Stomach inflammation
GASTROENTERITIS: See also Food poisoning
in infants, chloramphenicol for, [Fison] 292—ab
outbreak at Fort Meade, 575; 667
GASTROENTEROSTOMY
technic in duodenal ulcer, [Crile] 1077—ab
GASTROINTESTINAL TRACT: See also Abdomen; Duodenum; Intestines; Stomach
disease, evaluating clinical methods, [Goldbloom & others] *1593
effect of combined sympathectomy and vagectomy on, [Bingham & others] *1406
infections, polymyxin B and polymyxin E in, [Kagan] 678—ab
lesions in bulbar poliomyelitis, [Cook] 1076—ab
mercury lost in, [Cantor] *560
upsets after aureomycin, antacids to relieve, [Greenspan] 214—ab; 563—E
GASTROSCOPY: See Stomach
GAUCHER'S DISEASE
splenic aspiration in, [Morrison & others] *1579
GENERAL PRACTICE: Practitioner: See Medicine, practice; Physicians, practicing
GENETICS: See also Heredity
eugenics and, Paris, 956
GENITALS: See also Genitourinary System; Gonads; Penis; Vagina
macrogenitosomia, cortisone for adrenal hyperplasia, [Wilkins] 500—ab
small, in 30 year old man, 1366
tuberculosis, dihydrostreptomycin and *p*-aminosalicylic acid for, 1177
tuberculosis in women, [Swaab] 971—ab
GENITOURINARY SYSTEM: See also Genitals; Urinary System
tuberculosis, [Gütgemann] 1164—ab
tuberculosis, pyelographic methods in, [Dettmar] 71—ab
GEORGIA: See Atlanta
GERBER PRODUCTS
Armour strained beef hearts; also strained pork, 1028
GERIATRICS: See Old Age
GERMANY
atrocities denounced by Medical Association of Western Germany, 656
GERMICIDES: See Antiseptics; Sterilization, Bacterial
GERMS: See Bacteria
GERONTOLOGY: See Old Age
GESTATION: See Pregnancy
GESTOSIS: See Pregnancy, toxemia of
GHOUL HAND, [Jelliffe] 71—ab
GIBBS Medal: See Prizes
GIDDINESS: See Vertigo
GIFTS: See Donations (cross reference)
GILFILLAN
family of doctors, Iowa, 567
GLANDS: See under names of specific glands of Internal Secretion: See Endocrine Glands
Sex: See Gonads
GLANDULAR FEVER: See Mononucleosis, Infectious
GLASS
float device to prevent air embolism in transfusions under pressure, [Wilkinson] *1318
GLASSES
problem of when working with microscope, 1544
GLOMERULI: See Kidneys, glomeruli
GLOMERULONEPHRITIS: See Nephritis, glomerular
GLOMUS TUMOR
pathogenesis of multiple tumors, [Oberdalhoff] 1266—ab

GLOVES: See Rubber gloves
GLUCOSE: See Dextrose
GLUCOSULFONE (promin)
treatment in toxoplasmosis, [Cross] 1350—ab
GLYCEMIA: See Blood sugar; Diabetes Mellitus
GLYCOSURIA: See also Diabetes Mellitus
in obstetric patients, method for distinguishing from lactosuria, 691
GLYCYRRHIZA (licorice)
treatment of Addison's disease, [Groen] 1075—ab
GOITER: See also Goiter, Toxic; Hyperthyroidism
A.M.A. resolution on stamps of approval for iodized salt packages, 942
endemic, survey in 4 counties, Mich., 205
in East Belgium, 394
rutabagas, tulip bulbs and, [Greenwald] 1248—C
tuberculosis in thyroid adenoma, [Frasson] 1079—ab
GOITER, TOXIC
diagnostic drifts, deceptions and common misses, [Neal] *537
diffuse, of diencephalohypophysial origin, [de Gennes] 217—ab
treatment, 1323—ab
treatment, methylthiouracil, late results, [Iversen] 963—ab
treatment, propylthiouracil, hypoprothrombinemia after, [Craddock] 1262—ab
GOLD
Heart Awards: See Prizes
therapy, dermatitis from, ACTH for, [Steinberg & Roodenburg] *1225
therapy, dermatitis from, BAL for, [Kirsch] 754—ab
GOLDBERGER Award: See Prizes
GOLD-HEADED CANE: See Prizes
GOLF
Atlantic City golf awards, 1055
balls, balata as allergen, 1545
GONADOTROPINS
chorionic, excretion in term pregnancies after abortion, [Jones & Delfs] *1212
chorionic, synergistic action, relation to eclampsia, [Govan] 68—ab
serum concentration relation to hypertension in toxemia of pregnancy, [Govan] 1540—ab
GONADS: See also Ovary; Testis
hypogonadism (primary) from removal of both testicles, 1458
17-ketosteroid deficiency in rheumatic fever and arthritis, [Dunn] 677—ab
GONORRHEA
cause of blindness in Ohio, [Freeble & Donohue] *1500
treatment, oral terramycin or aureomycin in men, [Beinfeld] 1349—ab
treatment, rapid, in males with oral aureomycin, [Wright] 1163—ab
vulvovaginitis in young girls, [Carrera] 761—ab
vulvovaginitis, penicillin for [Peer] 1173—ab
GORDON Research Conferences, 386
GOUT
diagnosis; treatment with ACTH, [Kauffmann] 499—ab
why are alcoholic beverages not permitted in? 1089
GOVERNMENT: See United States
Control of Medicine: See Insurance, sickness (compulsory); Medicine, state
GRADUATE
Courses: See Education, Medical
Fellowships: See Fellowships
GRADUATES: See also Interns and Internships; Residents and Residencies
Canadian, examined for licensure in U.S., *344
failure in licensure examinations, *346; *347; 377—E
Foreign: See Physicians, foreign
of approved medical schools and others registered, 1922-1950, *359; *362
of schools of osteopathy registered, 1945-1950, *361; *362
of unapproved schools registered, 1945-1950, *360; *362
GRAFT: See Blood Vessels; Skin; Transplantation
GRAINS: See Cereal Products
GRAMICIDIN: See Tyrothricin
GRAND MAL: See Epilepsy
GRANDE COVIÁN, F., appointed to chair of physiology, Spain, 1525
GRANT, DAVID, appointed director of Red Cross blood program, 52
GRANTS for Research: See Fellowships; Foundations; Research; University
GRANULOMA
beryllium, effect of ACTH in, [Kennedy] 498—ab
Coccidioidale: See Coccidioidomycosis
giant-cell, of pituitary, [Donlach] 1355—ab
iodiopathic (fatal), of facial tissues treated with cortisone, [Moore] 1445—ab
Malignum: See Hodgkin's Disease
GRANULOMATOSIS
allergic, and vascular disease, [Churg] 1070—ab
GRANULOMATOSIS—Continued
lipophagia, Whipple's disease, role of adrenals cortex in, [Moehlig] 601—ab
rheumatic nodules in tuberculosis, [Valdés-Dapena] *1566
GRAPEFRUIT
sections, Monarch Brand Dietetic Pack, 477
GRAPHITE
action on lungs of rats, [Ray] 1538—ab
GRAVES' Disease: See Goiter, Toxic
GRAVITY: See Specific Gravity
GREAT BRITAIN: See British
GRIP: See Influenza
GROUP
Hospital Insurance: See Hospitals, expense insurance
GROWTH: See also Dwarfism
"growing pains": limb pains in children, [Naish] 1614—ab
stimulants, antibiotics act as, in animals, 479—E
GUM: See Balata
GUMS: See Jaws; Teeth
GYNECOLOGY
American Board of: See American Board
Third Annual Televised Postgraduate Conference on, 1516

H

HAIR
does shaving of scalp cause it to curl? 1366
dyes, reliable, 509
excessive (hirsutism), 510
Loss of: See Alopecia
trichotillomania in child 3½ years old, 417
wetting hair daily harmful? 1090
HALDEMAN, Jack C., appointed chief of Division of State Grants of PHS, 954
HAMMOND, W. A., neurologist, 243—ab
HAND: See also Fingers; Wrist
ghoul, [Jelliffe] 71—ab
ringworm, historical review, [Mitchell] *511
shoulder syndrome after myocardial infarction, procaine block of stellate ganglion for, [Swan & McGowan] *774
shoulder syndrome, autonomic function tests, [Bergholt] 1453—ab
HANDBALL
fatalities in, [Gonzales] *1506
HANDICAPPED: See also Blindness; Crippled; Disability
children, 1427
children's education, 481; 565
federal agency for, 39; 263
Rehabilitation: See Rehabilitation
HANOVIA Medical Diathermy, 27.12 megacycles, 338
HANSEN'S Disease: See Leprosy
HAPTENS
blocking antibodies and, 977
HARRISON NARCOTIC ACT
registration under, 657
HARVEY Lecture: See Lectures
HATE
"trap" headache, [Bostock] 604—ab
HAY FEVER
coronary disease and, 979
pregnancy and cortisone, 1089
HEAD: See also Brain; Cranium; Scalp
Bald: See Alopecia
Enlargement: See Hydrocephalus
injury and spinal punctures, 1363
injury, subdural tapping in subdural hematoma, [Walther] 1082—ab
HEADACHE: See also Migraine
histamine and, 979
hypoglycemic tendency with, [Harrill] 678—ab
"trap," [Bostock] 604—ab
HEALERS
Drugless: See Cults
HEALING: See Wounds
HEALTH: See also Disease
A.M.A. representatives on Subcommittee on Health of Committee on Labor and Public Welfare, [Lehman; Lull] 202
board of, first for Denver, 946
Center: See also Health units; Medical Center
center dedicated at Ohio State U., 485
center, Hillman, to expand, New York, 1518
center, union opens, New York, 384
department, state, new organization, Maryland, 1239
departments, guide for organizing, 275
Education, A. M. A. Bureau of: See American Medical Association
education, conference on, 268
Examination: See Physical Examination
exhibits at county fairs sponsored by Connecticut State Medical Society, 1516
Industrial: See Industrial Health
Information Foundation, (begins community studies) 42; (plans broadcasts) 207; (study of medical service plans by) 1332
Insurance: See Insurance, sickness
Inter-Association Committee on, 835
International Health Organization: See World Health Organization
Mental: See Mental Hygiene
Mission: See Medical Missions
HEALTH—Continued
National Health Service (England): See National Health Service
officers' convention (3rd), Philippine Islands, 1150
Plans: See Medical Service Plans
program for Europe considered, 1055
programs in Southeast Asia, 1436
protection of the community: Welton (film review), 750
public, Estella Ford Warner assigned to foreign mission in, 52
public health meeting (third), Madrid, Spain, 1525
Public Health Workers' Academy, Fla., 946
public, problems before Italian parliament, 276
resorts in management of chronic disease, (Council report) 1324
resorts, taking the cure: guide on all spas in Great Britain, 1148
Resources Office, (Dr. W. H. Aufranc appointed acting director) 52
Rural: See Rural Communities
School Health Service: See Schools
Service: See also Medical Service
Service Finance, London, 955
Statistics: See Vital Statistics
Supplies: See Medical Supplies
USPHS, (annual report) 52; (officer specialists) 275; (examination for sanitary engineers) 275; (examination for medical officers) 391; (industry needs more water) 492; (Communicable Disease Center at Atlanta) 492; 862; (Clinical Center for Medical Research) 668; (report on influenza) 953; (examination for regular medical officers) 954; (change of Marine Hospitals to U.S.P.M.S. Hospitals) 1436; (health programs in Southeast Asia) 1436; (German physicians in training) 1606
Units: See also Health center
units (local), A.M.A. statement on, 836
units (mobile) WHO ships, 1141
workers, Japanese, in training, 492
World Health Assembly, report, 857
HEARING: See also Ear
Audiology Foundation grants-in-aid, Illinois, 658
Loss of: See Deafness
Tennessee Hearing and Speech Foundation, 1430
tests, A.M.A. Council minimum requirements for pure tone audidometers, 255
tests, audiometry at higher frequencies, (Council report) 817
tests, Microtone ADC Audiometer, Model 53-A, 338
HEARING AIDS
advertising, Council report, 651
Audicon, 650
Dahlberg, Model D-1, 1135
Malco, Model J., 1513
Micronic, Star Model, 1135
Microtone, Model T-10, 1513
Otarion, Model G-1 (Whisperwate), 338
Paravox, Model J, (Tiny-Myte) 1135
Tonamic, Model 50, 1325
HEART: See also Arteries, coronary; Cardiovascular System; Endocardium; Pericardium
accidents after vasopressin injection (pitressin), [Slotnik & Teigland] *1126
American Heart Association, (report), 207; (research applications) 1332; (examination manual revised) 1603
angiocardiography effect on, [Zinn] 1610—ab
anomalies, auricular septal defects, [Keith] 501—ab
anomalies, clinical implications of Marfan's syndrome, [Fischl & Ruthberg] *704
anomalies, congenital pulmonary stenosis with intact interventricular septum (film review), 58
anomalies, cor triloculare biatrium, [Rogers] 400—ab
anomalies, single ventricle with rudimentary outlet chamber, [Lambert] 753—ab
anomalies, surgical relief of pulmonic stenosis in tetralogy of Fallot, 928—E
Arrhythmia: See Arrhythmia
Association of Southeastern Pennsylvania grants first fellowship, 1518
Auricular Fibrillation: See Auricular Fibrillation
auricle (fibrillating), motion of, cinematographic and oscillographic study, [Prinzmetal & others] *1275
beriberi, in Iowa veterans, [Gutenkauf] 871—ab
block (complete), Boeck's sarcoid with, mimicking carotid sinus syncope, [Simkins] *794
bock (incomplete right bundle branch) 1365
cancer, Belgium, 1060
catheterization, myocardial injury at, [Biorck] 1352—ab
catheterization of right side, cardiovascular disorders occurring with, [Zimdhal] 399—ab
Chicago Heart Association grants, 1601
clinic, Pottsville, Pa., 1054
Decompensation: See Heart Insufficiency
Disease: See also Cardiovascular Disease; Endocarditis; Pericarditis

HEART—Continued
disease, adequate antepartum care for [Fitzgerald & others] *910
disease, aerosol treatment of dyspnea in patient, [Monfardini] 409—ab
disease and radioactive iodine, 978
disease, ballistocardiography in, [Dock & others] *1284
disease (congenital), tricuspid valves atresia [Sommers] 59—ab; [Abrams] 1612—ab
disease control program, Miss., 42
Disease (Coronary): See Arteries, coronary disease, hydrochloride acid secretion in, [Furbetta] 1615—ab
Disease, Hypertensive: See Blood Pressure, High
disease research grant, New York, 384
disease (rheumatic) in patients over 60, [Appel & Kossmann] *1474
disease (rheumatic), resect auricular appendages, [Longmire] 963—ab
disease, school health program for children with, [Doster] 872—ab
disease, self-injection with mercurial diuretic, [Krehbiel & Stewart] *250
disease, specialist looks at everyday medical care in industry, [Overholt] *1186
electrocardiogram, action of procaine amide in arrhythmia, [Miller & others] *1004
electrocardiogram in cardiac resuscitation with massage and, [Rochu] 1448—ab
electrocardiogram in complications of antabuse treatment, [Macklin & others] *1377
electrocardiogram in death, 1366
electrocardiogram in ventricular tachycardia, [Irvin & Cutts] *1282
electrocardiogram, RS-T segment, T wave after 2-step and anoxemia tests, [Storch & Master] *1011
electrocardiograph, Edin, Model 220, 1513
electrocardiographic diagnosis of myocardial infarction, [Merlis] 64—ab
electrocardiography, EKG pattern in coronary insufficiency, 979
electrochemography, Italy, 1061
electrokymography, 1606
Enlargement: See Heart hypertrophy
"Examination of Heart" manual revised by American Heart Association, 1603
Failure: See Heart insufficiency
function tests (Master 2-step and 10% anoxemia), electrocardiogram after, [Storch & Master] *1011
Gerber-Armour Strained Beef Hearts, 1029
granulomatosis lesions, Aschoff bodies in tuberculosis, [Valdés-Dapena] *1566
Guard Your Heart (film review), 1068
hypertrophy, diagnosis of chronic cor pulmonale, [Herve] 1616—ab
in myxedema, radiologic and electrocardiographic study during thyroid therapy, [Capriglione] 67—ab
Infarction: See Myocardium
Inflammation: See also Pericarditis
inflammation (acute rheumatic), cortisone in, [Harris] 284—ab
Instituto Nacional de Cardiologia, Mexico, 394; 864
insufficiency, digitalis therapy in relation to potassium, 1030—E; [Lown] 1447—ab
insufficiency, hydrothorax in myocardium failure, 1458
insufficiency, ion exchange resins treatment of congestive failure, [Kleiber] 402—ab
insufficiency, ligate inferior vena cava in irreducible decompensation, [Donzelot] 1164—ab
insufficiency, localized interlobar pleural effusion in, [Feldman] *1408
intracardiac and rectal temperature, [Eichna] 1346—ab
massage, cardiac resuscitation with electrocardiography and, [Rochu] 1448—ab
Muscle: See Myocarditis; Myocardium
Pain: See Angina Pectoris
procaine intravenously toxic action on, [Carter] 1532—ab
puncture in man for diodrast visualization of ventricular chambers and great arteries, [Pondomenech] 1441—ab
Rate: See Tachycardia
research, grants for, (W. Va.), 660; (Tenn.), 1430
Rhythm: See Arrhythmia
surgery, anesthesia for commissurotomy for mitral stenosis, [Keown & others] *446
surgery, hypothermia induced in, [Borema] 1614—ab
surgery, Italy, 1246
surgery, resection of auricular appendages, [Longmire], 963—ab
surgery, revascularization, [McAllister] 499—ab
tensiography of auricle and ventricle, report on at World Congress of Cardiology, 276
Valve: See Aortic Valve; Mitral Valve; Pulmonary Valve; Tricuspid Valve
ventricles, heart puncture in man for diodrast visualization, [Pondomenech] 1441—ab
ventricles, rupture in myocardial infarction, [Gans] 961—ab
HEAT: See also Burns
diagnostic value of thermal coagulation tests of serum proteins, [Tzanck] 1268—ab
HEAT—Continued
Production: See Metabolism, basal
Therapeutic Use: See also Diathermy; Fever, therapeutic
therapeutic use, Commonwealth Therapeutic Units, 1235
HEBREW UNIVERSITY
foreign student problems, Israel, 1247
medical students graduate from, Israel, 1247
HEIGHT: See Body height
HEINZ PRODUCTS
junior chicken soup, 1029
junior macaroni, tomatoes, beef and bacon, 1029
strained sweet potatoes, 477
HEKTOEN
Institute, Solomon Foundation gift to, 1239
Lecture: See Lectures
Memorial Fund, Illinois, 1331
HEKTOEN, LUDVIG, death; portrait, 1057
HELENIN
treatment of night blindness, [Nidermeier] 760—ab
HELIO-THERM Model F, 1513
HELIUM
aluminum welding and, 979
HELMINTHIASIS: See Tapeworm Infection
HEMAGGLUTININS: See Agglutinins, cold; Blood groups
HEMANGIOMA
benign, resect left lobe of liver for, [Altman] *254
HEMATOLOGY: See Blood
Research Foundation: See Foundations
HEMATOMA
Subdural: See Meninges
HEMIPLEGIA
infantile, hemispherectomy in, [Krynauw] 70—ab; 1171—ab
HEMOCHROMATOSIS
report of unusual case, [Doane & others] *926
HEMOGLOBIN: See Methemoglobinemia
HEMOLYSIS: See Anemia, hemolytic
Disease in Newborn: See Erythroblastosis, Fetal
HEMOPERITONEUM
culdocentesis, [Beacham] 64—ab
HEMOPHILIA
female carrier, [Merskey] 970—ab
normal coagulation time in, [Merskey] 1353—ab
HEMOPNEUMOTHORAX
spontaneous, treatment, [Beatty] 1345—ab
HEMORRHAGE: See also Diathesis, hemorrhagic; Hemophilia; Purpura; Telangiectasia; under names of diseases and organs affected
cause of, during use of aminopterin, [van Creveld] 971—ab
cause of maternal deaths in rural South, [Ferguson] *1388
cause of maternal deaths, New York City, [Faison] *1394
Control: See Hemostasis
in pregnancy, renal failure after, [Tennent] 1450—ab
massive hemorrhage in pericardial and pleural cavities in fatal acute hepatitis, [Elsen & Markovich] *1414
Menstrual: See Menstruation
Subarachnoid: See Meninges
surgical, reduction with methonium compounds, [Shackleton] 1449—ab
tendencies from use of cortisone and ACTH, 1273
HEMOTASIS
action of amniotic fluid, Belgium, 670
HEMOTHERAPY: See also Blood Transfusion
reabsorption of intrapleural injection of blood by hyaluronidase, [Amistani] 685—ab
HENDERSON, ELMER L., farewell message, (President's Page) 381
HENNA
reliable hair dyes, 509
HEPARIN
test for sensitized clotting time, [de Takats] *1370
treatment plus ligation in thromboembolic disease, [Ravdin] 966—ab
HEPATIC: See Liver
HEPATITIS
Infectious: See Liver Inflammation
HEREDITY: See also Genetics
of diabetes mellitus, marriage of patients advisable? [Thöne] 1081—ab
of epilepsy as told by relatives and twins, [Lennox] *529
of leukemia, [Anderson] 600—ab
HERMAPHRODITISM
pseudohermaphrodism, cortisone for adrenal hyperplasia, [Wilkins] 500—ab
surgical reversal of sex advisable in female pseudohermaphroditism, [Hinman] *423
HERNIA: See also Spine, intervertebral disk
diaphragmatic, pneumoperitoneum in diagnosis, [Clay] 63—ab
diaphragmatic, tantalum mesh in, [Monahan] 1076—ab
femoral, Surgical Anatomy of the Femoral Triangle, (film review) 1440
inguinal, Surgical Anatomy of the Inguinal Area (film review), 1526
HEROES
War: See Korean War, Heroes; World War II, Heroes
HERPES: See also Dermatitis herpetiformis
simplex, cytologic smears in diagnosis, [Blank & others] *1410
simplex (disseminated), aureomycin in, [Buerk] 1446—ab
zoster, aureomycin and chloramphenicol in, [Carter] 1354—ab
zoster, cytologic smears in diagnosis, [Blank & others] *1410
zoster of lower extremity, [Shedrow] 1269—ab
zoster, vitamin B_1 in, Paris, 1338
HERTER Lecture: See Lectures
HEXYLRESORCINOL
treatment of ascariasis, 1545
HICCUP
in coronary thrombosis relieved with phrenic crush, [Rubin & others] *1418
HIGH
Blood Pressure: See Blood Pressure, High
Frequency Apparatus: See Diathermy
HIGHWAY Accidents: See Automobiles, accidents
HILL-Burton Act: See Hospitals, building program
HILLEBRAND Prize: See Prizes
HILLMAN health center to expand, New York, 1518
HIP: See also Femur; Pelvis
dislocation, asymmetric infragluteal creases, (reply) [Chapple] 418
HIPPOCRATES' tree, cutting from, London, 955
HIPPOCRATIC OATH
modernisation by World Medical Association (1948), 793—ab
HIRSCHSPRUNG'S Disease: See Colon, megacolon
HIRSUTISM: See Hair, excessive
HISTAMINE
antihistamines, bladder dysfunction after, [Uhle & Knoch] *1319
antihistamines, fatal pancytopenia after, [Glassmire] 756—ab
antihistamines, New York Academy of Medicine statement, *495
antihistamines, treatment of common colds, [Shaw] 65—ab
headaches and, 979
HISTOLOGY: See Cells; Tissues
HISTOPLASMIN
sensitivity in Norway, [Böe] 1264—ab
sensitivity in Williamson County, Tenn., [Zeidberg] 61—ab
HISTOPLASMOSIS
communicability, [Prior] 1257—ab
disseminated, ethyl venillate in, [Christie] 215—ab
first case in West Virginia, [Fischer] 1163—ab
tuberculosis and coccidiodidomycosis, [Beadenkopf & Loosli] *621
HISTORY of Medicine: See Medicine, history
HOBBIES: See Physicians, avocations
HODGKIN'S DISEASE
acute fulminating, [Newman & Pushkin] *335
splenic aspiration, [Morrison & others] *1575
treatment, nitrogen mustard, [de Lorenzo] 1614—ab
treatment, triethylene melamine, [Karnofsky] 960—ab
HOFHEIMER Award: See Prizes
HOGS: See Pork; Trichinosis
HOLMES, OLIVER WENDELL
on knowledge, 698—ab
physician's features should not betray his apprehension of patient's fate, 614—ab
say not too much, speak it gently, 914—ab
HOLMGREN, HJALMAR, death, Sweden, 278
HOME
care plans for poliomyelitis, 1241
care program, new, Mass., 1053
house to house spread of tuberculosis, [Webb] 1615—ab
nursing homes: their part in community's attack on chronic illness, 562—E
HOMICIDE: See Murder
HOMOGRAFTS: See Transplantation
HOMOSEXUALITY
in military service, [Campbell] *91
HOOKWORM Infection: See Ancylostomiasis
HORMONES: See also Endocrine Glands; under names of specific glands as Adrenals
balance of pregnancy compared with that of menopause, 1544
Sex: See Androgens; Estrogenic Substances; Gonadotropins
somatotropic, etiologic role in malignant nephrosclerosis, periarteritis nodosa and hypertensive disease, [Selye] 290—ab
Steroid: See Steroid hormones
treatment of advanced mammary cancer, current status Council report, 471
HOSIERY
Ace Elastic, 927
HOSPITALIZATION INSURANCE: See Hospitals, expense insurance; Medical Service Plans

HOSPITALS: See also Clinics; Medicolegal Abstracts at end of letter M
administration, selected films for, 867
administration today, bright side of, Sweden, 1338
aerial units, 1337
A.M.A. Committee on Extension of Hospitals and Other Facilities, 844
A.M.A. Council on Medical Education and Hospitals: See American Medical Association
A.M.A. Reference Committee on Medical Education and Hospitals, 839
A.M.A. resolution on appointments to Commission on Accreditation of Hospitals, 850
A.M.A. resolutions on professional standards in hospitals to be vested in A.M.A., 853
Approved by A.M.A.: See Hospitals registered
Army, residents begin training in, 953
bed capacity, *113
beds, percentage occupied, *118
Blue Cross Plans: See Hospitals expense insurance
books reach Japanese, 857
building boom, Conn., 1601
Building Program: See also Hospitals, veterans; and various subheads under Hospitals
building program, Hill-Burton Act, 668
Care: See Hospitals service
Charles Gilman Smith at U. of Chicago, 737
children's (first) in Bolivia, 570
children's, for juvenile drug addicts, 1034
children's, Hospital For Crippled Children, Israel, 1248
Children's Orthopedic Hospital, addition to, Washington, 856
children's, statistics, *116
children's, summer clinics at, Colorado, 567
children's, women aid, S. Dak., 1054
clinical laboratories in, *121
department of general practice in: manual of American Academy of General Practice on establishing, *123
Deutsch's "Trouble in our Hospitals" in *Woman's Home Companion* answered by AHA and AMA, 200
Expense Insurance: See also Insurance, sickness; Medical Service Plans
expense insurance, Blue Cross, A.M.A. Reference Committee report, 851
expense insurance, Blue Cross benefits, A.M.A. resolution on, 854
Facilities: See Hospitals, service
funds, application for, Calif., 41
Government: See also Hospitals, Army; Hospitals, veterans; Medicolegal Abstracts at end of letter M
government, service in United States, *111
Group Hospitalization: See Hospitals, expense insurance
growth of, summary, 1909-1950, *110
Hall County, dedicated, Ga., 1516
House of Mercy, (film review) 1255
infants ward, aerobacter infections on, [Smith] 1262—ab
infants ward, care of newborn in, [Slobody & Wallace] *1462
Insurance: See Hospitals, expense insurance
International Congress on, Belgium, 1060
isolation, statistics, *116
Interns; Internships: See Interns and Internships
Joint Commission on Accreditation of, 263; 834; 837; 850
Marine, changed to U. S. Public Health Service Hospitals, 1436
maternity, in Quito, Ecuador, 1061
maternity, recommended restriction of visitors, Illinois, 1239
maternity service, births in hospitals, statistics, *115; *119
maternity service, improving patient care in hospital labor and delivery suite, [Gold & others] *1459
maternity service, need for in the South, [Ferguson] *1388
Medical Service Plans: See Hospitals, expense insurance
Menorah, new psychiatric unit, Missouri, 738
mental health opportunities in general hospitals, [Dunn] 1445—ab
Michael Reese Institute and Conference, Illinois, 265
Military: See Hospitals, Army; Hospitals, Marine
Mount Sinai, awards for interns at, Illinois, 41
Neuropsychiatric: See Hospitals, psychiatric
number, May 12, 1951, page 109
number according to size, *110
Nurses; Nursing: See Nurses and Nursing
orthopedic, statistics, *116
outpatient services, *121
paintings in wards, Norway, 494
patients, average daily census, *117
patients, average length of stay, *118
patients, number admitted, *117
patients, spiritual welfare, Sweden, 278
Personnel: See also Hospitals, staff
personnel, tuberculosis in, [Childress] *1188
Philadelphia Hospital for Contagious Diseases, new type, 1518
HOSPITALS—Continued
politics in, Argentina, 1339
Psychiatric: See also Hospitals, state
psychiatric, Belgium, 670
psychiatric, detention of sane in asylums, Sweden, 55
psychiatric, Letchworth Village, New York, 266
psychiatric, Saint Elizabeths, course in psychiatric nursing, 211
psychiatric, statistics, *115
psychiatric unit at St. Barnabas, New York, 384
Record: See Medical Record Librarians
registered by A.M.A., list of, *124; 958
Resident; Residencies: See Residents and Residencies
Royal Cancer Hospital centenary, London, 1148
service, facilities by states and by control, (government hospital) *112; (nonprofit organization) *113; (proprietary hospitals) *114
service, facilities by states and by type of service, *115
service for poliomyelitis patients, Illinois, 737
service, governmental and nongovernmental, *111
service in U. S., 30th annual presentation of data, *109; 200—E
service, summary of, according to type of service, *110; *111; *115
service, summary of, classified by control, *110
ship, Danish Red Cross, 277
should hospital appoint foreign graduate as intern? 1138
staff appointment, what are qualifications for? 1138
staff (closed) and general practitioner, [Matlin] 1062—C
staff meetings, A.M.A. resolutions on combining with County society meetings, 853
STANDARD NOMENCLATURE OF DISEASES AND OPERATIONS, its adoption by, *123
standardization, 834; 837
standardization, A.M.A. resolutions on, 850; 854
standardization discussed by A.M.A. Board, 262
state, transorbital leucotomy in, [Moore & others] *324
surgeons, slow promotion of, Sweden, 55
Survey and Construction Act: See Hospitals, building program
Swedish Red Cross hospital unit in Korea, 1524
Tuberculosis: See Tuberculosis hospitals
underground, 1337
veterans, at Hines, disciplinary problems in patients, [Pollock & others] *1562
veterans, medical care of tuberculous veteran, continuing problem, [Barnwell] *1372
veterans, new managers, 391; 1147
veterans, seminar conducted at L. I. 954
X-ray departments, *121
"HOT FLASHES" in man, 879
HOUSE: See Home
HOXSEY Cancer Clinic, 736
HUMERUS
fractures, [Davis] *430
HUMIDITY
five per cent, 1273
HUNGER: See also Appetite
sensation of, and appetite compared, 1312—ab
HUNTERS
color-blind, 415
HYALURONIDASE
reabsorbes intrapleural injection of blood, [Amistani] 685—ab
HYDATID Cyst: See Echinococcosis
HYDE (Lillia Babbit) Foundation: See Foundations
1-HYDRAZINOPHTHALAZINE
hormonal cerebral vasopressor substance, 1326—E
HYDROCARBON
chlorinated, insecticides; aldrin and dieldrin poisoning, 378—E
HYDROCEPHALUS
treatment, third ventriculostomy in children, [Voris] 497—ab
HYDROGEN ION CONCENTRATION
in alkalosis due to hyperventilation, [Sattler & others] *1125
of cerebrospinal fluid, 1176
HYDRONEPHROSIS
in infants and children, [Campbell] 1611—ab
HYDROPHOBIA: See Rabies
HYDROTHORAX
in myocardium failure, 1458
role of adrenal cortex in, [Moehlig] 601—ab
HYDROXYCOUMARIN, Methylene bis: See Bishydroxycoumarin
HYGEIA (Today's Health): See American Medical Association, Today's Health
HYGIENE: See Health
Industrial: See Industrial Hygiene
Mental: See Mental Hygiene
HYPERCORTICALISM: See Adrenals, cortex
HYPERGLOBULINEMIA: See Blood proteins
HYPERGLYCEMIA: See Blood sugar
HYPEROSTOSIS
ankylosing, in old age, [Forestier] 502—ab
bilateral temporal, from vitamin A poisoning, [Bair] *1574
infantile cortical, hypervitaminosis A with, [Rineberg & Gross] *1222
infantile cortical, with involvement of ilium, [Racely] 1611—ab
HYPERPARATHYROIDISM: See Parathyroid
HYPERPNEA: See Respiration, hyperventilation
HYPERPYREXIA: See Fever, therapeutic
HYPERSENSITIVITY: See Allergy
HYPERSPLENISM: See Spleen
HYPERTENSION: See Blood Pressure, High
HYPERTHERMIA: See Fever
HYPERTHYROIDISM: See also Goiter
complicating pregnancy, 222
radioactive iodine and, [Forbes] 501—ab
without apparent hypermetabolism, [Werner & Hamilton] *450
HYPERTRICHOSIS: See Hair, excessive
HYPERTROPHIC Arthritis: See Osteoarthritis
HYPERTROPHY: See Splenomegaly; under names of organs as Heart
HYPERVENTILATION: See Respiration, hyperventilation
HYPNOTICS
edema after prolonged use, [Krisch] 218—ab
HYPODERMIC Injections: See Injections
HYPOGLYCEMIA: See Blood sugar
HYPOGONADISM: See Gonads
HYPOPHARYNX: See Pharynx
HYPOPHYSIS: See Pituitary
HYPOPITUITARISM: See Pituitary
HYPOPOTASSEMIA: See Blood potassium
HYPOPROTEINEMIA: See Blood proteins
HYPOPROTHROMBINEMIA: See Blood prothrombin
HYPOSENSITIZATION: See Allergy
HYPOSPADIAS
surgical treatment, Denis Browne technic, [Burns & Harvard] *421; *422
HYPOTENSION: See Blood Pressure, low
HYPOTHERMIA: See Temperature, Body, low
HYPOTHYROIDISM: See also Myxedema
adrenal cortex role in, [Moehlig] 601—ab
diagnostic drifts, deceptions and misses, [Neal] *537
in childhood: its genesis, [Reilly] *234
HYPOXEMIA: See Blood oxygen
HYSTERECTOMY: See Uterus, excision
HYSTERIA
clinical aspects, [Purtell & others] *902; [Aisenson] 1526—C

I

ICE
bag cooling to prevent hyperthermia during anesthesia, [Bigler & McQuiston] *553
ICTERUS: See Jaundice
IDIOCY
mongolism in one twin and not in other, 1271
mongolism: no relation to thyroidectomy in mother, 1178
IDIOSYNCRASY: See Allergy
ILEUM
as substitute for urethra, [Merricks] 1534—ab
ulcer (nonspecific), [Shea] *1490
ILIUM
infantile cortical hyperostosis involving, [Racely] 1611—ab
ILL (Edward J.) Award: See Prizes
ILLINOIS: See Chicago
Neuropsychiatric Institute in Chicago transferred to U. of Illinois, 1516
University of: See University
ILLNESS: See Disease
ILLUSTRATION: See Art
IMHOTEP
first great Pyramid, 561—ab
IMMIGRANTS
Physicians: See Physicians, foreign
IMMUNITY: See also Antibodies; under names of specific diseases
ACTH and, [Bjørneboe] 1267—ab
IMMUNIZATION: See also Vaccination; under specific diseases as Diphtheria
advisable before trip to Caribbean islands, 1087
BCG: See Tuberculosis immunization
paralysis after, [Bousfield] 1450—ab
poliomyelitis after diphtheria immunization in Belfast, [McLeod] 1165—ab
poliomyelitis season and, 1087
suspended, for summer; possible relation to poliomyelitis, N. Y. 856; (New York Academy clarifies statement) 1240
syringe needles and mass inoculation technique, [Fleming] 1079—ab
IMPOSTORS: See Malingering
IMPREGNATION: See Coitus; Pregnancy; Superfetation
Preventing: See Contraception
INANITION: See Nutrition deficiency
INCLUSION BODIES: See Cells
INCOME: See also Fees; Wages
physicians' survey, (Bureau's report), 1237—E; [Dickinson & Bradley] *1249
Tax: See Tax, income
INDEX
Medicus Danicus, Denmark, 1149

INDIA
Lady Hardinge Medical College for Women at New Delhi, Dr. Birch appointed dean, 1516
penicillin factory in, 662
INDIANA
University inaugurates quarter system, 1331
INDO-CHINA
mission, 953
INDUSTRIAL ACCIDENTS: See also Workmen's Compensation
eye emergencies, first aid treatment by physician, [Knapp] *12
eye injuries in welders, 417
INDUSTRIAL DISEASES: See also Workmen's Compensation
anthrax, [Wolff] 282—ab
asthma in cotton mill worker, 607
balata as allergen, 1545
beauty shop operators, 879
beryllium granulomatosis and silicosis, ACTH in, [Kennedy] 498—ab
beryllium poisoning (chronic), spontaneous remission, [Cass] 1528—ab
beryllium poisoning, hazard of, 980
cancer of lung, environmental, [Hueper] 284—ab
damage from toxic substances, 980
dyestuff workers, lesions of bladder and kidney in, [Müller] 760—ab
edema of lungs from oxides of nitrogen, [Botelho] 1269—ab
lead poisoning, saturnism in Pyrite mines, Belgium, 394
mineral spirits, effects of inhaling, 1457
paralysis of ulnar nerve, [deJong] 503—ab
photoflash, effect on vision, 1456
Pneumonoconiosis: See Pneumonoconiosis
Silicosis: See Pneumonoconiosis
television worker, low sperm count in, 1546
tuberculosis in hospital and sanatorium personnel, [Childress] *1188
tuberculosis (inoculation) in workers, [Grady] 1257—ab
vinylidene chloride resins, 768
welders' disease, Belgium, 670
INDUSTRIAL HAZARD: See Industrial Diseases
INDUSTRIAL HEALTH: See also Industrial Hygiene
American Foundation of Occupational Health, to evaluate medical services, 268
A. M. A. Committee on Medical Care for Industrial Workers, 846
A. M. A. Council on Industrial Health: See American Medical Association
conference (naval) a success, 274
Congress on Occupational Medicine, 577
diabetes in employees, control of, 767
gastroduodenal ulcer and work, Italy, 576
hospitals, statistics, *115
Industrial Medical Association, new name for American Association of Industrial Physicians and Surgeons, 949
International Congress of Industrial Medicine, Dr. Peterson A. M. A. representative to, 1328
lung disease (nontuberculous) and incapacity to work, Brazil, 1150
old age and employability, [Levine] 61—ab
physician, disaster blueprint for, (Council report) 1064
psychiatry, seminars in, [Ross] 754—ab
specialist looks at everyday medical care in industry, (orthopedics) [Billig] *1179; (psychiatry) [Due] *1183; (cardiology) [Overholt] *1186
vision, conference on, Indiana, 265
INDUSTRIAL HYGIENE
Laboratory at Massachusetts Institute of Technology, 738
INDUSTRIAL INJURIES: See Industrial Accidents
INDUSTRIAL POISONING: See Industrial Diseases
INDUSTRIAL TRADE UNIONS
government medicine—danger ahead, [Beck] 826
INEBRITY: See Alcoholism
INFANTILE CORTICAL HYPEROSTOSIS: See Hyperostosis
INFANTILE PARALYSIS: See Poliomyelitis
INFANTS: See also Children; Infants, Newborn; Pediatrics
aniline methemoglobinemia from marking ink on diapers, [Howarth] 1356—ab
ascariasis in; merits and disadvantages of chenopodium oil treatment, 416
"belly bands" for, 298
body temperatures during anesthesia in, [Bigler & McQuiston] *551
empyema in, [Frazier & Davis] *247
feeding, 1461—ab
feeding, Beech-Nut cooked barley cereal, 731
feeding, Biolac-modified powdered milk, 1029
feeding (breast-fed), effect of magnesium sulfate when ingested by mother, 298
feeding, Bremil Powdered Infant Food, 1029
feeding, Gerber-Armour strained beef hearts, also strained pork, 1029
INFANTS—Continued
feeding, Heinz Products, (strained sweet potatoes) 477; (junior chicken soup; macaroni tomatoes, beef and bacon) 1029
feeding, hypo-allergenic foods for allergy in young infants, 297
feeding, hypo-allergenic, Soyalac, 731
feeding, Pablum barley cereal; Pablum rice cereal, 1029
feeding, Vitamin B_{12} and folic acid in, (Council report) *1028
hypervitaminosis A with infantile cortical hyperostosis, [Rineberg & Gross] *1222
meningitis in; sulfadiazine orally and penicillin and streptomycin intramuscularly, [Bonaba] 1164—ab
Mortality: See also Infants, premature
mortality in Belgium, 1060
premature, birth weight and length of gestation, [Toback] *897
premature, Chicago plan for care of [Hess] *891
premature infant center (6th) New York, 568
premature, mortality, nation-wide plan for reducing, [Baumgartner] *893
premature, mortality, pilot study of maternal and neonatal factors in, [Wallace & others] *886
premature, retrolental fibroplasia, [Reese] 60—ab, [Kaye] 410—ab; [Laupus] 1342—ab; [Lelong] 1451—ab
strabismus in young infant, (reply) [Smith] 300
Weight: See Infants, Newborn, weight
INFANTS, NEWBORN: See also Fetus; Placenta
Asphyxia in: See Asphyxia in newborn
Birth Process: See Labor
Birth Rate: See Vital Statistics birth rate
care of, in hospital, principles and facilities for, [Slobody & Wallace] *1462
cerebral birth injury, late effects, [McKhann] 601—ab
congenital malformation from rubeola in mother, 1339
congenital syphilis treatment in, 77; (replies) [Moore; Greenhouse; Schamberg; McConahy] 1090
conglutinating activity in serums, [Seelich] 1269—ab
duodenal obstruction in, [Rankin] 1163—ab
Erythroblastosis: See Erythroblastosis, Fetal
gastric ulcer in, 1365
hemolytic disease, Price-Jones curve in, [deVries] 503—ab
intestinal obstruction in, diagnosis and surgical management, [Wyatt] *236
meconium peritonitis, [Packard] 1158—ab
Mortality: See Infants, premature; Stillbirth
myasthenia gravis in, [Geddes] 407—ab
pylorus spasm in, papaverine for, [Mayerhofer] 502—ab
rupture of stomach in, [Ross & others] *1313
tuberculosis BCG vaccination (routine), [Pigeaud] 1166—ab
tuberculous mothers, [Ratner] 965—ab
tumors, retroperitoneal teratoma (twin fetuses in fetu), [Gross] 1161—ab
weight at birth, [Toback] *897
INFARCTION: See Myocardium
INFECTION: See also Immunity; Staphylococcus; Streptococcus; under specific organs and regions
aerobacter, on infants' wards, [Smith] 1262—ab
airborne, 429—ab
cause of maternal death in rural South, [Ferguson] *1388
cause of maternal deaths, New York City, [Faison] *1394
dangers in careless removal of rubber gloves, [van der Kuyp] 217—ab
diagnosis, (differential): gas in tissues, [Sättler] 1164—ab
of Blood: See Meningococcemia; Septicemia
of "clean" surgical wounds, [Girdlestone] 1080—ab
Prevention: See Antiseptics; Sterilization, Bacterial
syringe needles and mass inoculation technique [Fleming] 1079—ab
treatment, aureomycin, [Rutenberg] 1072—ab
treatment, polymyxin B and polymyxin E, [Kagan] 678—ab
INFECTIOUS DISEASE: See also Communicable Disease
Philadelphia Hospital for Contagious Diseases, new type of institution, 1518
Preventing: See Immunization; Vaccination
resistance to penicillin, [Grace] 1151—C
INFECTIOUS HEPATITIS: See Liver Inflammation
INFECTIOUS MONONUCLEOSIS: See Mononucleosis, Infectious
INFERTILITY: See Sterility
INFLAMMATION: See under names of specific diseases and organs as Arteritis; Bladder; Gallbladder; Heart; Nephritis; Pancreas; Phlebitis; Stomach
INFLUENZA
diagnosis, laboratory (film review), 496
epidemiology of (film review), 281
meningitis, streptomycin in, [Allibone] 1080—ab
of Parrots: See Psittacosis
report on, from U.S.P.H.S., 953
rheumatic fever and, 979
subclinical, 1137—E
treatment, wholesale use of sulfonamides and antibiotics, 221
vaccine, nontoxic, 654—E
INFRAGLUTEAL asymmetric creases, (reply) [Chapple] 418
INFRA-RED RAYS
eye injuries in welders from, 417
INFUSIONS: See Injections
INHALATION: See Aerosols
of Dust: See Pneumonoconiosis
INHALATORS
M. S. A. Demand Pneophore, 1135
Scott Demand Inhalators, 650
INHERITANCE: See Heredity
INJECTIONS: See also under names of specific substances
hypodermic, self-injection of mercurial diuretic, [Krehbiel & Stewart] *250
injuries of peripheral nerves after, [Kolle] 1079—ab
intradermal analgesia on anterior abdominal wall in labor, [Kovarik] 64—ab
Intraspinal: See Anesthesia, spinal
Intravenous: See also Anesthesia, intravenous
intravenous, of amino acids, pre- and postoperative treatment, [Westermann] 1538—ab
intravenous, of fat emulsions of high caloric potency, [Shafiroff] 499—ab
intravenous use of ACTH, [Mandel & others] *546
intravenous use of alcohol in surgical patient, [Karp & Sokol] *21; (correction) 741
paralysis caused by, [Glückert] 874—ab
parenteral chloramphenicol therapy, [Moseley] 1613—ab
procaine to overcome pain of injections of liver extract or vitamins, 77
Spinal: See Anesthesia, spinal
Subcutaneous: See Injections, hypodermic
INJUNCTIONS: See Medicolegal Abstracts at end of letter M
INJURIES: See Accidents: Burns; Fractures; Trauma; Wounds; under specific organ or regions as Brain; Fingers; Head; Spinal Cord; Medicolegal Abstracts at end of letter M
Industrial: See Industrial Accidents
War: See Korean War
INK
marking, on diapers, aniline methemoglobinemia in infants from, [Howarth] 1356—ab
INOCULATION: See Immunization
INSANE ASYLUMS: See Hospitals, psychiatric
INSANITY: See Dementia Precox; Mental Disorders
Manic Depressive: See Psychosis
INSECTICIDES
action on shortage of, 1241
chlorinated hydrocarbon, aldrin and dieldrin poisoning, 378—E
DDT: See Chlorophenothane
moth ball poisoning, [Abelson] 873—ab
parathion poisoning in citrus spray operations, [Williams] 1444—ab
toxic residues on foods, 492
INSECTS: See also Fleas
bites, desire information on, [Wilson] 1526—C
INSEMINATION
Preventing: See Contraception
INSTITUTE: See also Societies and Other Organizations at end of letter S
Instituto Nacional de Cardiología, contributions of, Mexico, 394; 864
National Cancer Institute, [Connery] *578
of Living, Dr. Francis James Braceland joins, Connecticut, 483
INSTITUTIONS: See Hospitals; Schools; Schools, Medical
INSTRUCTION: See Education, Medical; Schools; University
INSTRUMENTS: See also Apparatus; Hearing Aids; Medical Supplies; Needles; Thermometers
cold sterilization, 1087
INSULIN
hypoglycemic reactions to, [Benjamin] *813
hypopotassemia and, Israel, 1247
sensitivity and constitution, [Lister] 682—ab
tolerance test in liver cirrhosis, [Waife] 403—ab
treatment of chorea minor, [Mayerhofer] 1538—ab
INSURANCE: See also Workmen's Compensation
A.M.A. resolution on standardized reporting forms, 851; 933
Health: See Insurance, sickness
Hospitalization: See Hospitals, expense insurance; Medical Service Plans
Life: See Metropolitan Life Insurance Co.

INSURANCE—Continued
Medical Society Medical Service Plan: See Medical Service Plans
Sickness: See also Hospitals, expense insurance: Medical Service Plans
sickness, A.M.A. resolution on dissemination of health insurance news, 261; 935
sickness, California Medical Association opposed establishment of cash sickness disability law, 847
sickness, federal aid to cooperative and nonprofit plans, 1427
Sickness, National Health Service: Beveridge Plan: See National Health Service, England
sickness, Rhode Island Temporary Disability Insurance given support by Rhode Island Medical Society, 847
Sickness (Voluntary), Advertising Campaign of A.M.A. Favoring: See American Medical Association, National Education Campaign
sickness (voluntary), A.M.A. Committee on Relations with Lay Sponsored Voluntary Health Plans, 846
sickness (voluntary), A.M.A. reference committee report, 851
social, Colombia, 56
social, national plan, Israel, 1248
Workmen's Compensation: See Workmen's Compensation
INTELLIGENCE: See also Mental Defectives
quotient required for the Armed Forces, [Campbell] *87
tests, methods and clinical psychiatry, Paris, 955
INTER-AMERICAN: See Pan American
INTER-ASSOCIATION Committee on Health, 835
INTERCOURSE, Sexual: See Coitus
INTERN: See Interns and Internships
INTERNAL MEDICINE
Italian Society of, discusses essential hypertension, 56
INTERNAL SECRETION, Glands of: See Endocrine Glands
INTERNATIONAL: See also United Nations; World Medical Association; list of Societies at end of letter S
Anesthesia Research Society, 857
Centre for Study of Medical Jurisprudence proposed by World Medical Association, 657
Code of Medical Ethics established by World Medical Association, 657; 793—ab
Congress of Clinical Pathology, July 16-20, 741
Congress of Industrial Medicine, Dr. Peterson A.M.A. representative to, 1328
Congress of Military Medicine and Pharmacy, (13th congress) 393; 862
Congress of Physical Medicine, 44
Congress on Hospitals, Belgium, 1060
Congress on Psychiatry (first), Paris, 955
Gerontological Congress, 1603
Health Organization: See World Health Organization
Medical Congress, Paris, 1437
Orthopaedic Congress (fifth), 44
Poliomyelitis Congress, (endorsed by A.M.A. Board of Trustees), 1328; (program), 1432
Radiomedical Center, Italy, 1061
Society of Angiology (first meeting June 9), 207
Symposium on Chemistry of ACTH, 1431
Union Against Venereal Disease (postulates regarding congenital syphilis), 259—E
Urology Forum, Spain, 1525
Youth Center, Paris, 493; 1338
INTERNS AND INTERNSHIPS: See also Preceptorships; Residents and Residencies
A.M.A. Advisory Committee on, 838; 839
A.M.A. resolution on distribution of, 261; 854; 935
appoint 112 interns by U.S.P.H.S., 954
appointment, quota basis for, Council report, 818—E; 865
hospital appoint foreign graduate as interns? 1138
hospital intern day at U. of Illinois, 264
licensure requirements, *356; *359
loans for junior physicians, by San Francisco Medical Society, 1601
remuneration increased for junior hospital appointments, Norway, 494
required by medical school for degree, *355; *359
special registrants completing, Selective Service System statement on, 575
INTERSEXUALITY: See Hermaphroditism
INTERVERTEBRAL DISK: See Spine
INTESTINES: See also Appendix; Cecum; Colon; Duodenum; Feces; Gastrointestinal Tract; Ileum; Jejunum; Mesentery; Peritoneum; Rectum
Anastomosis: See Intestines, surgery
bacteria, effect of terramycin, [Dearing] 287—ab
bowel control after spinal cord injuries, [Pollock & others] *1556
Disease: See also Gastroenteritis; Typhoid
disease, roentgen changes in, Brazil, 671
diversion of urine into, in bladder cancer, [Thomas] 1534—ab
examination of lower bowel in absence of symptoms, [Young] 282—ab
INTESTINES—Continued
Hernia: See Hernia
inflammation, cortisone in chronic regional enteritis, [Machella] 1529—ab
inflammation, regional enteritis treated with ACTH, [Gray] 1256—ab
inflammation, vagotomy in regional enteritis, [Eddy] 216—ab
Intussusception: See Intussusception
lesions, barium modified with methylcellulose in diagnosis, [Marks] 62—ab
mucosa, enterogastrone in peptic ulcer treatment, [Bone] 61—ab
mucosa, enterogastrone ineffective in peptic ulcer, [Wollum] 1532—ab
obstruction, arteriomesenteric ileus, [Telford] 62—ab
obstruction in newborn and the infant, diagnosis; surgical management, [Wyatt] *238
Parasites: See also Ancylostomiasis; Ascariasis; Tapeworm Infection
parasites, roentgen changes in, Brazil, 671
perfusion of isolated loop for uremia after removing only kidney, [Twiss & Kolff] *1019
Surgery: See also Gastroenterostomy
surgery, primary anastomoses, [Ravdin] 1535—ab
ulcer, nonspecific, [Shea] *1490
Whipple's intestinal dystrophy, role of adrenal cortex in, [Moehlig] 601—ab
INTOXICATION: See Alcoholism; "Drunkenness" under Medicolegal Abstracts at end of letter M
INTRATRACHEAL Tube: See Trachea
INTRAVENOUS
Anesthesia: See Anesthesia
Injections: See Injections
INTUSSUSCEPTION
in newborn, [Wyatt] *238
INVALIDS: See Disease, chronic; Patients
INVENTOR: See Patents
INVESTIGATORS: See Research
IODINE
radioactive, and heart disease, 978
radioactive, hyperthyroidism and, [Forbes] 501—ab
radioactive, in medical research, diagnosis, and therapy, (Council article), [Kelsey] *1133
radioactive, injection, neoplasms in thyroid after, [Goldberg] 1350—ab
radioactive, treatment of angina pectoris, [Wolferth] 1262—ab
radioactive, treatment of thyroid tumors, [Crile] 753—ab
radioactive, uptake after intravenous use, [Kriss] 963—ab
Schiller test for early cancer of cervix, 1177
IODIZED SALT: See Salt
IONS: See also Cations
exchange resins treatment of congestive cardiac failure, [Kleiber] 402—ab
IRON
metabolism in human pregnancy, [Chapman] 1156—ab
treatment, intravenous, for anemia of pregnancy, [Scott] 684—ab
treatment of anemia in blood donor, [Bateman] 402—ab
IRRADIATION: See Radiation; Radium; Roentgen Rays; Ultraviolet Rays
ISLANDS OF LANGERHANS: See Pancreas
ISOTOPES: See Radioactive Isotopes
ISRAEL
1950 poliomyelitis epidemic in, 1438
ITALIAN
parliament, public health problems before, 276
Society of Internal Medicine, discusses essential hypertension, 56
Society of Surgery, discusses treatment of cancer of rectum, 56
ITCH
Swimmer's: See Schistosomiasis
ITCHING: See Eczema
IVY
Poison: See Rhus

J

JAPAN
atrocities denounced by medical association of, 656
books reach hospitals in, 857
health workers in training, 492
medical education team for, 570
JAPANESE RIVER Fever: See Tsutsugamushi Disease
JAUNDICE
diagnosis (differential), value of cholesterol esters in, [King & Taubenhaus] *1298
Epidemic (Homologous Serum): See Liver Inflammation
extreme hyperglobulinemia in hepatic necrosis, [Zimmerman] 601—ab
icterus and streptomycin therapy, [Janbon] 604—ab
in chronic hepatitis, [Ricketts] 1531—ab
in leukemia from portal nodes obstructing bile duct, [Bower & Coca-Mir] *987
JAWS: See also Teeth
familial fibrous swelling of due to multiple dentigerous cysts, [Caffey] 66—ab
JEJUNUM
cancer (primary), familial incidence, [Pridgen & others] *797
surgery, hepaticojejunostomy following common duct injury (film review), 398
ulcer (nonspecific), [Shea] *1490
JEWS: See also Hebrew University; Israel
Jewish Medical Center, million dollar gift to, Maryland, 1428
JOBS: See Industrial Health
JOHNSON, HENRY S., death of executive secretary-treasurer, Va., 568
JOINT
Commission on Accreditation of Hospitals to be established, 263; 834; 837
Committee of A.M.A.: See American Medical Association
JOINTS: See also Arthritis; under names of specific joints as Elbow; Hip; Wrist
changes and adrenal insufficiency, [Schaal] 1450—ab
Degenerative Disease: See Osteoarthritis
disease, corticosterone and ascorbic acid in arthropathies, [Tassinari] 1171—ab
Painful: See Arthralgia
stiffness and pain, [Billig] *1179
surgery, nylon arthroplasty in arthritis, [Kuhns] 1352—ab
Tuberculosis: See Arthritis, tuberculous
JOURNALS: See also Library; Newspapers
Conference of Editors of State Medical Journals, approved by A. M. A., 1328
Family Life, New York, 205
GP, (Dr. Hussey named to editorial staff), 1518
Hygiea (Today's Health): See American Medical Association, Today's Health
Journal of Mount Sinai Hospital, (memorial journal to Dr. Berg), 43
Psychiatric Bulletin, West Virginia, 1054
Reader's Digest, articles on physicians in, 379—E; (President's Page) 383
State Journal Advertising Bureau: See American Medical Association
Today's Health: See American Medical Association
Woman's Home Companion, answer to Deutsch's article, "Trouble in Our Hospitals" in, by A. M. A. and A. H. A., 202
writing medical papers, 1119—ab
JUDET'S operation: femur replaced by prosthesis in acrylic substance, 394
JURISPRUDENCE, MEDICAL: See Medical Jurisprudence

K

KAHN TEST
comparative study, [Russo] 1355—ab
KALA-AZAR: See Leishmaniasis
KANSAS
Missouri flood, 1431; 1436
University of: See University
KAPPA Delta Prize: See Prizes
KEGEL'S Exercise: See Exercise, therapeutic
KELL FACTOR
erythroblastosis as cause of stillbirths, [Prokop] 1539—ab
KELLY Operation: See Urine incontinence
KENNEDY Operation: See Urine incontinence
KERATOCONJUNCTIVITIS
epidemic, and the nervous system, 930—E
KERATOSIS
from potassium arsenite (Fowler's solution), 418
KETONE BODIES
in etiology of diabetic coma, [Fisher] 1069—ab
KETOSIS: See Acidosis
17-KETOSTEROIDS
deficiency in rheumatic fever and arthritis, [Dunn] 677—ab
in Urine: See Urine
KETY, SEYMOUR S., appointed scientific director, 954
KEYES Memorial Medal: See Prizes
KHELLIN (visammin)
name recognized by Council, 927
treatment in angina pectoris, [Osher] 756—ab
KHELLOL GLUCOSIDE
name recognized by Council, 927
KIDNEYS: See also Ureters; Urinary System
Artificial: See Peritoneum irrigation
calculi, recurring, 418
calculi, warning regarding narcotic addict: B. J. Messin, Jr., 750—BI
cancer, smear of urinary sediment in diagnosis, [Harrison] 288—ab
Disease: See also Hydronephrosis
disease, ACTH in nephrotic syndrome, [Barnett] 755—ab; [Riley] 1262—ab
disease, exsanguinotransfusion in hepatorenal syndrome, [Snapper] 1157—ab
disease, sodium adsorbent resins contraindicated in—warning, [Lipman] 395—C
Glomeruli: See also Nephritis, glomerular
glomeruli and nephrons, number; combined length, 997—ab

KIDNEYS—Continued
Inflammation: See Nephritis
insufficiency after hemorrhage in pregnancy, [Tennent] 1450—ab
lesions in dyestuff workers, [Müller] 760—ab
necrosis (bilateral cortical), [Smith] 602—ab
Pelvis: See Pyelography
Sclerosis: See Nephrosclerosis
surgery, survival 46 days after removing only functioning kidney, [Twiss & Kolff] *1019
transplantation, Paris, 393
"KILLED in Action": See Korean War, Heroes
KITS
diabetes, 44
KLINE TEST
comparative study, [Russo] 1355—ab
KNEE
sign, new clinical signs of silicosis, [Maulini] 1445—ab
KNUDSEN Award: See Prizes
KOEPFLI, JOSEPH B., Ph.D., science advisor to State Department, 52
KOESSLER FELLOWSHIP: See Fellowships
KOREA
methyl alcohol poisoning from drinking Korean sake [Keeney] 401—ab
KOREAN WAR, 1950
Danish Red Cross hospital ship, 277
death rate among battle casualties, [Hume] *1309
inspection tour in, by civilian consultants, (picture), 210
malaria in veterans who have served in Korea, treatment, 1523; 1602
medical service (pictures), 1522
medical work praised by Surgeon General Bliss, 211
Swedish Red Cross Hospital in, 1524
United Nations medical service in, [Hume] *1307
U. S. Navy surgical teams at front in Korea, 51
veterans, VA benefits for, 482
KOREAN WAR, HEROES
DuFrenne (M. F.) died while in service, 745
Fairless (C. J., Jr.) died while in service, 745
Hudson (M. F.) died while in service, 745
Jensen (R. T.), Silver Star, 575
Wilkins Memorial Library Fund, Iowa, 483
KREBS citric acid cycle, 1030—E
KRUKENBERG Tumors: See Ovary
KWELL ointment, 1%, N. N. R., (Commercial Solvents), 927
KYSO mineral spirits, effects of inhaling, 1457

L

L. E. CELLS: See Lupus Erythematosus
LABELS
urge warning on, for ethylene dichloride plastic cement, [Lochhead & Close] *1323
LABOR: See also Abortion; Cesarean Section; Hospitals, maternity; Infants, Newborn; Maternity; Midwives; Obstetrics; Pregnancy; Puerperium
Anesthesia in: See Anesthesia
Complications: See Eclampsia
Death during: See Maternity, mortality
improving patient care in hospital labor and delivery suite, [Gold & others] *1459
Labor and Childbirth, new film added to A. M. A. Motion Picture Library, 1440
method of delivery by physician in rural South, [Ferguson] *1391
midforceps operation, indications; results based on pelviradiography and progress of labor, [Weinberg] *1465
physiological position for delivery: squatting position, [Howard] 680—ab
Premature: See Infants, premature
presentation, occiput posterior, 441—ab
presentation (transverse), hazardous to give posterior pituitary in, 1088
LABOR UNIONS: See Industrial Trade Unions
LABORATORIES
Brookhaven National Laboratory: See Atomic Energy
clinical, in hospitals, *121
collecting specimens for laboratory demonstration and isolation of fungi, [Ajello] *1581
laboratory diagnosis in influenza (film review) 496
State Institute of, Mass., 484
Technicians: See Technologists
LACERATIONS
pigmentation after, 1177
LACTATION: See also Milk, human
abnormal, [Foss] 970—ab
quinine treatment of malaria effect on, (reply) [King] 510
LACTIFEROUS Ducts: See Breast
LACTOBACILLUS casei factor (synthetic): See Acid, folic
LACTOSURIA: See Urine
LAENNEC Society Prize: See Prizes
LAME: See Crippled
LAMPS: See Sunlamps; Ultraviolet Rays
LANGERHANS' Islands: See Pancreas
LANGUAGE: See Terminology
LARYNX: See also Otorhinolaryngology; Voice
chronic laryngitis, Italy, 1060
edema, cortisone treatment, [Freeman] 396—C
LASHES: See Eyelashes
LASSEN, OTTO, death, Denmark, 864
LATHYRISM
cicerism and CH factor, [Vivanco] 218—ab
LATIN AMERICAN: See Pan American
LAUGHTER
sham mirth in cerebral disease, [Martin] 1352—ab
LAW in relation to Physician: See Medical Jurisprudence
LAWS AND LEGISLATION: See also Medical Practice Act
federal, weekly summary, 39; 202; 263; 382; 481; 565; 736; 932; 1034; 1330; 1427
Harrison Narcotic Act: See Harrison
state, weekly summary, 39; 203; 382; 482; 565; 657; 736; 828; 932; 1034; 1138
Violation of: See Medical Jurisprudence; Medicolegal Abstracts at end of letter M
Workmen's Compensation: See Workmen's Compensation
LAXATIVES: See Cathartics
LEAD
poisoning, saturnism in Pyrite mines, Belgium, 394
poisoning, sodium citrate in, [Hardy] 497—ab
LEAGUE of Nations: See United Nations
LECHE de higuerón treatment of ascariasis, 1545
LECTURES
Bardeen Memorial, 660
Dyer (first), 954
Fish (John W.) 204
Harvey, (9th) 43
Hektoen, 41
Herter, 266
Mellon, 43
Smith (Harold Wellington), created, 51
Thompson, 205
Wadsworth, 659
LEG: See Legs
LEGAL MEDICINE: See Laws and Legislation; Medical Jurisprudence; Medicolegal Abstracts at end of letter M
LEGISLATION: See Laws and Legislation
LEGS: See also Femur; Foot; Hosiery
Amputation: See Amputation
Artificial: See Limbs, Artificial
Fractures: See under names of specific bones
herpes zoster in, [Shedrow] 1269—ab
lengthening, [Allan] 69—ab
pains in children, (replies) [Fuldner; McKeever; Reich] 880; [Naish] 1614—ab
ulcers, pedicle graft for, [Brummelkamp] 682—ab
LEIOMYOMA
of stomach, 1588—ab
LEISHMANIASIS
kala-azar in Turkey, 671
treatment, chloramphenicol for tropical ulcer, [Ampofo] 410—ab
LENS, CRYSTALLINE
Opacity: See Cataract
retrolental fibroplasia, [Reese] 60—ab; [Kaye] 410—ab; [Laupus] 1342—ab; [Lelong] 1451—ab
retrolental fibroplasia in triplets, 1363
surgery in infancy and childhood, [Chandler] 59—ab
LENSES: See Glasses
LEPROSY
American Leprosy Missions, Inc., grants, 1142
federal bills to improve situation, 1427
in Norway, 213
treatment, amithiozone, [Vegas] 404—ab
LEPTOSPIRA
pomona, infection with, and Q fever, Australia, 957
LEPTOSPIROSIS
ocular complications in various types, [Doret] 970—ab
LEROUX, Prof., death, Paris, 1338
LETTERER-SIWE DISEASE
treatment, streptomycin, [Aronson] 1356—ab
LEUKEMIA
acute, natural history of, [Southam] 870—ab
acute subleukemic lymphocytic, portal nodes obstruct bile ducts causing jaundice, [Bower & Coca-Mir] *987
complications in radiophosphorus therapy, [Stroebel & others] *1304
etiology, 1588—ab
familial, [Anderson] 600—ab
induced, and thymectomy, [Law] 404—ab
pathology, 1569—ab
splenic aspiration, [Morrison & others] *1575
treatment, folic acid antagonists, [Hendricks] 677—ab
treatment, nitrogen mustard [de Lorenzo] 1614—ab
treatment, titrated, regularly spaced radioactive phosphorus or spray x-ray, [Osgood] 674—ab
treatment, triethylene melamine, [Karnofsky] 960—ab
LEUKEMIA—Continued
treatment, uremia complicating chemotherapy, use of triethylene melamine, [Kravitz & others] *1595
vs. spent polycythemia, [Morrison] *1579
LEUKOCYTES: See Eosinophils
Count: See Leukemia; Mononucleosis, Infectious
LEUKODERMA: See Albinism; Vitiligo
LEUKOSIS
avian leukosis complex, split eye in chickens, relation to hepatitis in man, 1544
LEUKOTOMY: See Brain surgery
LIBIDO
androgens effect on, in women treated for breast cancer, [Foss] 1168—ab
nymphomania, 690
LIBRARIANS: See Medical Record Librarians
LIBRARY: See also Books; Journals; Newspapers
Academy of Medicine of Toledo and Lucas County, Ohio, (picture) 1429
New York Academy of Medicine services, 739
Wilkins Memorial Library Fund, Iowa, 483
LICENSURE: See also Medical Practice Acts; State Board
candidates examined according to school, 1950, *340; *344
candidates examined, 1946-1950, (number who passed and failed), *357; *361
candidates examined, 1950, source of, *344
candidates licensed by reciprocity and endorsement, 1950, according to medical school, *352; *353
candidates licensed by reciprocity and endorsement of credentials, 1950, *350
educational requirements of licensing boards, *354; *358
examinations (consolidated) of state boards and National Board, 1950, according to school, *345; *346
failures by graduates of existing approved schools in U.S., *346; 347; 377—E
fees, *357; *360; (for registration), *361
foreign-trained physicians examined for license, *363; *364; *370; 378—E
foreign trained physicians, state requirements for license, *368
internship required for, 1950, *356; *359
licentiates representing additions to profession, *351; *356; 357
National Board of Medical Examiners, (consolidated examination), *345; *346; (state boards endorsing certificates), *373; (license granted on basis of), *375
reciprocity and endorsement policies of state boards, *348; *350; *352; *353
reciprocity, endorsement, waiver or exemption policies of Basic Science Boards, *371; 377—E
registration (annual), *357; *360
registration (annual), states requiring; also fees required, *361
registration by reciprocity and endorsement, *349
registration of graduates of approved schools and others, 1922-1950, *359; *362
registration of graduates of schools of osteopathy, 1945-1950, *361; *362
registration of graduates of unapproved schools, 1945-1950, *360
registration of physicians, 1904-1950, *358; *362
requirements for interns and residents, *356; *359
schedule of written examination dates and reciprocity meetings, *357; *360
statistics number, May 26, 1951, page 339
temporary permits, *357; *360
U. S. government credentials, as basis for, *357; *360
LICORICE: See Glycyrrhiza
LIFE: See also Death
Duration: See Old Age
expectancy in Norway, 957
Insurance: See Metropolitan Life Insurance Co.
LIGAMENTS
stretching, [Billig] *1179
LIGATURE: See Sutures
LIGHT: See Photoelectric
LIMBS: See Extremities
LIMBS, ARTIFICIAL
suction socket, proper selection of patients for above knee type, [Bechtol] *625
LINDE Type R-501 Oxygen Therapy Regulator, 1235
LINITIS Plastica: See Stomach
LIP: See Lips
LIPIDS
oil aspiration pneumonia in infancy, [Crome] 1614—ab
pneumonia, [Volk] 752—ab
LIPOIDS: See Lipids; Necrobiosis lipoidica
LIPOPHAGIA
granulomatosis, Whipple's disease; role of adrenal cortex in, [Mochlig] 601—ab
LIPS
swollen, angioneurotic edema, 76
LIQUOR, Alcoholic: See Alcohol
LITERATURE: See Books; Journals; Terminology
LITHIASIS: See Calculi (cross reference)
LITTLE'S Disease: See Paralysis, cerebral

LIVER: See also Bile Ducts
abscess, pyelographic deformity produced by, [Coppridge & others] *107
arterial perfusion in shock, [Delorme] 291—ab
biopsy (punch), in detecting hematogenous tuberculosis, [Cohen & Giges] *1414
cirrhosis, diagnostic "catch-basket," 416
cirrhosis in hemochromatosis, [Doane & others] *926
cirrhosis, insulin tolerance test in, [Waife] 403—ab
cirrhosis, jaundice in chronic hepatitis, [Ricketts] 1531—ab
cirrhosis, melanoderma and diabetes: interesting syndrome, [Saad Hossne] 969—ab
damage, contraindication for intravenous use of alcohol in surgical patient, [Kark & Sokol] *21
Disease: See also Jaundice
disease, biliary cirrhosis, diagnostic "catch-basket," 416
disease, exsanguinotransfusion in hepatorenal syndrome, [Snapper] 1157—ab
disease, methionine therapy, Italy, 276
Extract: See Liver preparation
function in Bright's disease, [Bastagli] 69—ab
function tests in differential diagnosis of jaundice, [King & Taubenhaus] *1298
function tests in peptic ulcer, [Goldbloom & others] *1593
Inflammation: See Liver Inflammation *following*
Inflammation (Chronic): See Liver, cirrhosis
necrosis, extreme hyperglobulinemia in, [Zimmerman] 601—ab
oil (percomorph), chronic vitamin A poisoning from overdosage, [Bair] *1573
preparation, CH factor and cicerism, [Vivanco] 218—ab
preparation, procaine to overcome pain of liver extract injections, 77
role in hypertension, [Davis] 399—ab
surgery, hepaticojejunostomy following common duct injury (film review), 398
surgery, resect left lobe for benign hemangioma, [Altman] *254
toxins as precipitating factors in chronic porphyria, [Brunsting & others] *1211
tuberculosis (hematogenous), punch biopsy to detect, [Cohen & Giges] *1414
tumors, hemangioma, resect left lobe for, [Altman] *254
LIVER INFLAMMATION (infectious hepatitis; epidemic jaundice)
fatal acute hepatitis: massive hemorrhage in pericardial and pleural cavities, [Eisen & Markovich] *1414
in Portland and Boston, 740
outbreak, New York, 1517
posttransfusion viral hepatitis, [Ginzburg] 1078—ab
"split eye" in chickens source of hepatitis in man? 1544
transmission to patient from surgeon possible? 607
treatment, choline, [Kipping] 760—ab
LIVING: See also Life
Institute of, Dr. F. J. Braceland joins, 483
LOAN Funds: See Students, Medical
LOBOTOMY, Prefrontal: See Brain surgery
LOCKJAW: See Tetanus
LOCOMOTOR ATAXIA: See Tabes Dorsalis
LOEFFLER'S SYNDROME
in twins: possible allergic origin; ACTH treatment suggested, [Shecter & Graub] *1420
LONG ISLAND College of Medicine
alumni to finance medical school history, 661
LONGACRE Award: See Prizes
LONGEVITY: See Life expectancy; Old Age; Physicians, veteran
LOS ANGELES Clinical Session: See American Medical Association
LOVELACE, W. RANDOLPH, to head Medical Policy Council, 1059
LOW BLOOD PRESSURE: See Blood Pressure, low
LUMBAR Puncture: See Spinal Puncture
LUMINAL: See Phenobarbital
LUMITE
vinylidene chloride resins, 768
LUNGS: See also Bronchus; Pleura; Respiratory System
action of quartz plus coal or graphite on, in rats, [Ray] 1538—ab
anomalous lobe arising from esophagus, [Gans] 965—ab
blood supply, selective angiography, [Stanischeff] 685—ab
cancer (advanced), nitrogen mustard in, [Ayers] 65—ab
cancer, alveolar-cell, [McCoy] 1258—ab
cancer, bronchiogenic, differentiating from lung disease, [Moyer] 283—ab
cancer, bronchiogenic, early detection, [Paulson & Shaw] *525
cancer, diagnosis, [Parker] 401—ab
cancer, environmental, [Hueper] 284—ab
LUNGS—Continued
cancer, hypertrophic osteoarthropathy in, [Pattison & others] *783
cancer, incidence, 1514—E
cancer, inoperable, 1176
cancer, lymphangitic carcinomatosis of, [Hauser] 1258—ab
cavities, intracavernous administration of amithizone, [Malluche] 407—ab
cavities (residual) after thoracoplasty, [Bérard] 291—ab
changes after cholecystectomy, [Rudnikoff & Headland] *989
changes in brucellosis, [Orie] 971—ab
coccidioidomycosis in cavitation, [Winn] 960—ab
Collapse: See Pneumothorax; Pneumothorax, Artificial
Disease: See also Pneumonoconiosis
disease (nontuberculous) and incapacity to work, Brazil, 1150
disease, segmental resection for, [Conklin & Westerberg] *633
edema (acute) due to oxides of nitrogen, [Botelho] 1269—ab
edema, alcohol in, 931—E
edema and digitalis, 222
Embolism of Pulmonary Artery: See Embolism, pulmonary
gastric contents aspirated into, during anesthesia and surgery, [Culver] 1072—ab; 1236—E
hydatid cyst, treatment, [Armand Ugón] 874—ab
Hyperventilation: See Respiration
Infection: See also Influenza; Pneumonia; Tuberculosis of Lung
infection, empyema in infants and children, [Frazier & Davis] *247
infection, polymyxin B and polymyxin E for, [Kagan] 678—ab
lesions in South American blastomycosis, Brazil, 1061
Löffler's syndrome in twins, [Shecter & Graub] *1420
obstruction, tracheotomy to prevent in postoperative and severely debilitated patients, [Atkins] *241
pathology, diagnosis of chronic cor pulmonale, [Herve] 1616—ab
radiology after pneumothorax, [Racine] 874—ab
soot lung and effects of coal dust, [Gärtner] 874—ab
spirochetosis, [Mendelson] *727
surgery, resection in tuberculosis, [Eerland] 874—ab
surgery, segmental resection for diseases of, [Conklin & Westerberg] *633
Tuberculosis: See Tuberculosis of Lung
Vital Capacity: See Vital Capacity
LUPUS
treatment, calciferol and dihydrostreptomycin, 299
LUPUS ERYTHEMATOSUS
chronic disseminated, ACTH intravenously for, [Mandel & others] *546
disseminated, [Griffith] 1073—ab
L. E. cell, [Suksta] 1160—ab; [Michael] 1343—ab
systemic, plasma L. E. test in, [Haserick] *16; 819—E
treatment, ACTH and cortisone in acute crisis, [Haserick & others] *643
treatment, cinchoninic acid derivative, [Rennie] 683—ab
LYMPH
drainage, reestablishing in lymphedema, [Zieman] 964—ab
LYMPHATIC SYSTEM: See also Mononucleosis, Infectious
biopsy of subclavian node to diagnose sarcoidosis, [Weiss & others] *1221
lymphangitis, carcinomatosis of lungs, [Hauser] 1258—ab
portal nodes obstruct bile duct causing jaundice in leukemia, [Bower & Coca-Mir] *987
tuberculous adenitis effects of nitrogen mustard, [Del Dotto] 1617—ab
tuberculous cervical adenitis, punch biopsy of liver to detect, [Cohen & Giges] *1416
LYMPHEDEMA
postoperative, of arm, death after stellate ganglion block, [Pallin] 500—ab
reestablishing lymph drainage in, [Zieman] 964—ab
LYMPHOGRANULOMA
Benign: See Sarcoidosis
Malignant: See Hodgkin's Disease
LYMPHOMATOSIS
infectious hepatitis in man from "split eye" in chickens? 1544
LYMPHOSARCOMA
splenic aspiration, [Morrison & others] *1575
treatment, nitrogen mustard, [de Lorenzo] 1614—ab

M

M. S. A. Demand Pneophore, 1135
MACARONI
Heinz Junior macaroni, tomatoes, beef and bacon, 1029
McGREGOR Fund: See Foundations
McKEE, A. P., nontoxic influenza vaccine, 654—E
MAGAZINES: See Journals
MAGNESIUM
Silicate: See Talcum
sulfate, ingested by mother, effect on breast-fed baby, 298
MAICO Hearing Aid, Model J, 1513
MAIL: See also Postage Stamps
mailing specimens for laboratory demonstration [Ajello] *1582
MAININI Test: See Pregnancy diagnosis
MALARIA
approaching extinction in United States, 1245
control, 1515—E
control, DDT emulsifiers with vegetable oil base (B-13), Brazil, 1438
control, need for, 777—ab
control, Symposium on Nation-Wide Malaria Eradication Projects in the Americas, 1599—E
in veterans who have served in Korea, treatment, 1523; 1602
neuropsychic disorders of children of parents with [Schachter] 762—ab
transmission, [Lebon] 973—ab
treatment, quinine, advisable during pregnancy and lactation, (reply) [King] 510
MALE: See Spermatozoa
Climacteric: See Climacteric
Hormone: See Androgens
MALFORMATIONS: See Abnormalities
MALIGNANCIES: See Cancer; Sarcoma
MALINGERING
diaphragmatic flutter with symptoms resembling angina pectoris, [Craddock] *1315
MALPRACTICE: See Medicolegal Abstracts at end of letter M
MALTA FEVER: See Brucellosis
MAMMARY: See Breast
MANDIBLE: See Jaws
MANIC Depressive Psychosis: See Psychosis
MANSLAUGHTER: See Murder
MANURE
on football field definitely contraindicated; possible source of tetanus, 690
MAPHARSEN: See Oxophenarsine Hydrochloride
MAPLE Syrup: See Syrup
MARCHMAN Award: See Prizes
MARFAN'S SYNDROME
clinical implications, [Fischl & Ruthberg] *704
MARKLE Foundation: See Foundations
MARRIAGE: See also Coitus; Contraception; Families; Maternity; Paternity; Pregnancy
advisable in diabetes? [Thöne] 1081—ab
advisable in epilepsy? [Lennox] *529; (correction) 662
positive blood reactions in prospective bridegroom, 417
"safe period" and, Italy, 212
MARROW: See Bone Marrow
MASHBURN, NEELY C., Longacre award to, 667
MASK
Resp-Aid Oxygen Mask, Model 300, 108
MASSACHUSETTS
vision test to screen school children for visual errors, 1364
MASTER Two-Step Test: See Heart function
MASTITIS: See Breast inflammation
MATERNITY: See also Families; Labor; Lactation; Pregnancy
A. M. A. Committee on Maternal Care, 844
A. M. A., statement on maternal health, 835
benefits for wives of servicemen, 565
factors in premature infant mortality, [Wallace & others] *886
mortality, cause of, in New York City during 1948 and 1949, [Faison] *1393
mortality, cause of, in rural South, [Ferguson] *1388
MATRIMONY: See Marriage
MATTRESS
cold water, to prevent hyperthermia during anesthesia, [Bigler & McQuiston] *553
MAXILLA: See Jaws
MAXILLARY SINUS
penicillin used locally in, anaphylactic reactions from, [Everett] *1314
MAYER, MARTIN death, Venezuela, 662
MEALS: See Food
MEASLES
in mother; congenital malformation in child, Sweden, 1339
without a rash, 1272
MEAT: See also Pork; Trichinosis
shortage, England, 53
MECONIUM
peritonitis, [Packard] 1158—ab
MECOSTRIN Chloride: See Dimethyl-tubocurarine Chloride
MEDALS: See Prizes
for War Service: See Korean War, Heroes

MEDIA
for primary isolation of pathogenic fungi [Ajello] *1582
MEDICAL APTITUDE Test: See Aptitude Test
MEDICAL ASSOCIATION: See American Medical Association; Societies, Medical
MEDICAL AWARDS: See Prizes
MEDICAL BOOKS: See Books; Library; Book Reviews at end of letter B
MEDICAL CARE: See Medical Service
MEDICAL CENTER: See also Health center; Health units
hospital affiliates with, Connecticut, 383
Jewish, million dollar gift to, Md., 1428
Texas, expands neuropsychiatric service, 206
University of California, (picture) 737
University of South Carolina, 856
MEDICAL CERTIFICATES: See Certification; Death certificates
MEDICAL CLINIC: See Clinics
MEDICAL CODE: See Ethics, Medical
MEDICAL COLLEGE: See Schools, Medical; University
MEDICAL CONFERENCE: See Conference
MEDICAL CONGRESS: See Congress
MEDICAL CORPS: See Armed Forces; Army, U. S.; Navy, U. S.
MEDICAL CULTS: See Cults
MEDICAL DIATHERMY: See Diathermy
MEDICAL ECONOMICS: See Economics, Medical
MEDICAL EDUCATION: See Education, Medical
MEDICAL EQUIPMENT: See Medical Supplies
MEDICAL ETHICS: See Ethics, Medical
MEDICAL EXAMINATION: See Physical Examination
MEDICAL EXPENSE INSURANCE: See Hospitals, expense insurance; Medical Service Plans
MEDICAL FEES: See Fees
MEDICAL FOUNDATIONS: See Foundations
MEDICAL GRADUATES: See Graduates
MEDICAL HISTORY: See Medicine, history
MEDICAL INDEX: See Index Medicus
MEDICAL INSTITUTE: See Institute
MEDICAL JOURNALS: See Journals
MEDICAL JURISPRUDENCE: See also Laws and Legislation; Medicolegal Abstracts at end of letter M
International Centre for Study of, proposed by World Medical Association, 657
legal aspect of hermaphrodite, [Hinman] *1428
osteopathy a limited practice, West Virginia, 1141
Society of Medical Jurisprudence, New York, 484
MEDICAL LECTURES: See Lectures
MEDICAL LEGISLATION: See Laws and Legislation
MEDICAL LIBRARY: See Library
MEDICAL LICENSING BOARD: See State Board
MEDICAL LICENSURE: See Licensure
MEDICAL MAGAZINES: See Journals
MEDICAL MEETINGS: See Societies, Medical; list of Societies at end of letter S
MEDICAL MISSION
American Leprosy Missions, Inc., grants, 1142
Burma, 954
Estella Ford Warner assigned to foreign mission in public health, 52
French, Colombia, 672
health program in Southeast Asia, 1436
Indo-China, 953
MEDICAL MOTION PICTURES: See Moving Pictures
MEDICAL OFFICERS: See Armed Forces; Army, U.S.; Health, U.S.P.H.S.; Medical Preparedness; Navy, U.S.
MEDICAL PATENTS: See Patents
MEDICAL PERIODICALS: See Journals
MEDICAL PICTURES: See Moving Pictures, Medical
MEDICAL PLANS: See Medical Service Plans
MEDICAL POLICY COUNCIL: See Armed Forces
MEDICAL PRACTICE: See Medicine, practice; Physicians
MEDICAL PRACTICE ACT: See also Medicolegal Abstracts at end of letter M
request changes in, Colombia, 394
MEDICAL PREPAREDNESS: See also Civilian Defense
blood transfusion organization in wartime, Sweden, 1524
deferments of medical students, letter regarding, 943
in Sweden, 1338
physicians not volunteering for service, [Barton & others] 958—C
recruits, psychiatry and mobilization, [Campbell] *87
Selective Service System: Defense Department asks for more doctors, 274
Selective Service System statement on special registrants completing internships or residencies in June, 1951, 575
MEDICAL PRIZES: See Prizes
MEDICAL PROFESSION: See Medicine, profession of; Physicians; Specialists; Surgeons
MEDICAL PUBLIC RELATIONS: See Public Relations
MEDICAL RECORD LIBRARIANS
schools for approved, *199; 201—E
MEDICAL RESEARCH: See Research
MEDICAL SCHOOLS: See Schools, Medical
MEDICAL SCIENCE: See Medicine; Research; Science
Basic: See Basic Science
MEDICAL SERVICE: See also Health center; Hospitals; Insurance, sickness; Medical Center; Medicolegal Abstracts at end of letter M
A.M.A. Committee on Federal Medical Services, 845
A.M.A. Council on Medical Service: See American Medical Association
A.M.A. Council on National Emergency Medical Service: See American Medical Association
A.M.A. resolution on distribution of medical care, 851
civilian medical care for army personnel, form used for bill, 1059
Contract: See Medicine, practice
Emergency Medical Service: Emergency
Fees for: See Fees
Flying Doctors Medical Service, Australia, 669
for Armed Forces: See Armed Forces; Medical Preparedness
for Veterans: See Hospitals, veterans; Veterans
Government Controlled: See Medicine, state
Home Care: See under Home
Industrial: See Industrial Health
Plans: See Medical Service Plans *following*
quality of, 453—ab
Rural: See Rural Communities
Salaried: See Wages
State: See Medicine, state
study of, by Health Information Foundation, 1332
Supply of Physicians for: See Physicians, supply
United Nations, in Korean conflict, [Hume] *1307
MEDICAL SERVICE PLANS: See also Hospitals, expense insurance
A.M.A. Committee on Prepayment Hospital and Medical Service, 845
A.M.A. Reference Committee report on voluntary nonprofit organizations including Blue Shield, 851
A.M.A. resolution on Blue Shield, 850
A.M.A. resolution on medical prepayment plans, 851
MEDICAL SOCIETY: See Societies, Medical; list of Societies at end of letter S; Medicolegal Abstracts at end of letter M
MEDICAL STATISTICS: See Vital Statistics
MEDICAL STUDENTS: See Students, Medical
MEDICAL SUPERVISION of curative workshops, A.M.A. resolution on, 848
MEDICAL SUPPLIES: See also Apparatus; Dressings; Drugs; Instruments
from air, dropping of, Australia, 670
MEDICAL TECHNOLOGISTS: See Technologists
MEDICAL TERMINOLOGY: See Terminology
MEDICAL WOMEN: See Physicians, women
MEDICALLY HANDICAPPED: See Crippled; Handicapped
MEDICATION: See Drugs; Self-Medication
MEDICINE: See also Education, Medical; Medical Service; Physicians; Surgeons
Academy of: See Academy; New York Academy
American, A.M.A. resolutions on publicizing, 933
American, stature of, 1951, president's address, [Cline] *609
Aviation: See Aviation
Contract: See Medicine, practice
Cults: See Cults
discarded theories and treatments, 1022—ab
Faculty of: See Schools, Medical
Fellowships: See Fellowships
Forensic: See Medical Jurisprudence
Foundations aiding: See Foundations
history, first great Pyramid, 561—ab
history, in Paris in 1828, 20—ab
history, medical gavel awarded Kentucky Surgical Society by Dr. Vance, 1517
history, medicine on the battlefield before 1900, New York Academy exhibit, 206
history of military medicine, 1376—ab
in Belgian Congo, 393
Industrial: See Industrial Health
Internal: See Internal Medicine
Law in relation to: See Medical Jurisprudence
Lectures on: See Lectures
Legal: See Medical Jurisprudence
Military: See Korean War; Military Medicine
Organized: See American Medical Association; Societies, Medical
Physical: See Physical Medicine
Practice: See also Licensure; Medical Service; Obstetrics; Physicians, practicing; Specialties
MEDICINE—Continued
practice, A.M.A. resolution on dissemination of factual information on, 261; 935
practice, Committee on Detection in Private Practice, appointed by National Conference on Chronic Disease, 652—E
practice, contract practice ceases ("lodge" work), Australia, 957
practice (general), establishing department in hospitals; manual of American Academy of General Practice, *123
Practice, Opportunities for: See Physicians, positions open
practice, psychiatric techniques in, [Barhash] *1584
practice, resurgence of "general practitioner" pose a threat to good surgical care? [Lehman] 279—C; [Boyd] 1151—C; [Gorrell] 1340—C
practice, Texas Academy of General Practice, 1430
Preventive: See Preventive Medicine
Prizes in: See Prizes
Profession of: See also Physicians; Specialists; Surgeons
profession, future of, Norway, 1246
religion and, 709—ab
Research in: See Research
Scholarships: See Scholarships
School of: See Schools, Medical
Socialized, National Health Service: See National Health Service, England
Societies: See Societies, Medical
Specialization: See Specialties
state, citizenship—a physician's obligation, [Irons] *1023
state, government medicine—danger ahead, [Beck] 826
Tropical: See Tropical Medicine
Women in: See Nurses and Nursing; Physicians, women
MEDICINE AND THE WAR: See Medical Preparedness
MEDICINES: See Drugs; Self-Medication
MEDICOLEGAL: See Medical Jurisprudence; Medicolegal Abstracts at end of letter M
MEDITHERM, Model 1600-A, 108
MEDUNA, L. J., carbon dioxide treatment of stuttering and psychoneurosis, 1273
MEETINGS: See Societies, Medical; list of Societies at end of letter S
MEGACOLON: See Colon
MEIGS SYNDROME
role of adrenal cortex in, [Moehlig] 601—ab
MEILING, RICHARD L., resigns as chairman of Armed Forces Medical Policy Council, 210
MELANCHOLIA: See also Mental Depression
involutional, in women, prefrontal lobotomy for, 1458
MELANODERMA
liver cirrhosis and diabetes mellitus: clinical syndrome, [Saad Hossne] 969—ab
MELANOMA
on wrist, 1457
MELLON Lecture: See Lectures
MEMORIAL Lectureship: See Lectures
to Physicians: See Physicians, memorial
MEMORY
Loss of: See Aphasia
MEN
Climacteric in: See Climacteric
in Service: See Armed Forces; Army, U.S.; Korean War; Navy, U.S.; Servicemen; Veterans
MÉNIÈRE'S Disease: See Vertigo, aural
MENINGES
hematoma (acute subdural), [Chambers] 1260—ab
hematoma (subdural), subdural tapping in [Walther] 1082—ab
hemorrhage, fatal in sports, [Gonzales] *1506
hemorrhage, treatment of spontaneous subarachnoid hemorrhage, [Mount] *693
Tuberculosis: See Meningitis, tuberculosis
MENINGITIS
cryptococcus (torula), [Cook] *1105
hydrogen ion concentration of cerebrospinal fluid, 1176
influenzal, streptomycin for, [Allibone] 1080—ab
purulent, in infants: sulfadiazine orally and penicillin and streptomycin intramuscularly, [Bonaba] 1164—ab
treatment, polymyxin B and polymyxin E, [Kagan] 678—ab
tuberculous, cured by streptomycin, [Cantonnet] 1164—ab; [Calnan] 1265—ab; [Invernizz] 1453—ab
tuberculous, in children, streptomycin for, [Bertoye] 1539—ab
tuberculous, psychological changes during streptomycin treatment [Külz] 218—ab
MENINGOCOCCEMIA
Waterhouse-Friderichsen syndrome, cortisone for, [Nelson & Goldstein] *1193; [Newman] *1229
MENINGOCOCCUS
infection, adrenal cortex during, [Rumi] 1446—ab
Septicemia: See Meningococcemia

MENOPAUSE
hormonal balance of pregnancy and, compared, 1544
hot flashes and endometriosis, 608
MENSTRUATION
Cessation of: See Menopause
disorders and brain injury, [Kinnunen] 759—ab
Painful: See Dysmenorrhea
MENTAL DEFECTIVES: See also Epilepsy; Idiocy
in the Armed Forces, [Campbell] *87
MENTAL DEPRESSION: See also Menalcholia
Feelings of Depression (film review), 496
MENTAL DISORDERS: See also Alcoholism; Dementia Praecox; Epilepsy; Psychoses
A.M.A. Committee on Nervous and Mental Diseases, 838; 840
etiology: streptomycin treatment of tuberculous meningitis, [Külz] 218—ab
etiology: suicide after cortisone treatment, [Borman & Schmallenberg] *337; [Hulett] 1151—C
Hospitalization in: See Hospitals, psychiatric
in commanding officer, method of relieving [Campbell] *92
in Cushing's syndrome, [Spillane] 1538—ab
in Danes compared with Dutchmen and Finns, Denmark, 276
treatment, cerebral pneumatotherapy with pure oxygen, [Abély] 1171—ab
treatment, prefrontal compared with transorbital lobotomy, [Freeman] 1351—ab
treatment, prefrontal lobotomy, Italy, 212
treatment, transorbital leucotomy in a state hospital program, [Moore & others] *324
treatment, transorbital leukotomy, experiences with, [Moore] 1344—ab
MENTAL HEALTH: See Mental Hygiene
MENTAL HOSPITALS: See Hospitals, psychiatric
MENTAL HYGIENE
annual meeting on, Illinois, 204
Committee, Kentucky, 483
opportunities in general hospitals, [Dunn] 1445—ab
service, new, Va., 385
what is it? [Smith] 875—ab
MENTAL TESTS: See Intelligence Tests
MENTALITY: See Intelligence; Mental Defectives
MENTHOL
nonthrombocytopenic purpura from mentholated cigarets, [Highstein & Zeligman] *816
MENTICIDE
crime of, [Meerloo] 498—ab
MEPERIDINE (demerol; pethidine)
addict: Bernard J. Messing Jr., warning to doctors and hospitals, 750—BI
addiction, methadone substituted for, 1363
nitrous oxide anesthesia without barbiturate supplement, [Ruben] 1357—ab
MEPHENESIN (myanesin; tolserol)
muscle relaxants in low-back disorders, 930—E
treatment, oral, of tetanus, [Boles & Smith] *1296
MERALLURIDE (mercuhydrin)
sodium solution, N.N.R., (Lakeside) 1134
toxic reactions to, [Reeves] *1594
MERCAPTOMERIN (thiomerin)
self-injection by patient, [Krehbiel & Stewart] *250
sensitive to meralluride injection but not to, [Reeves] *1594
*d*MERCAPTOPROPANOL: See BAL
MERCUHYDRIN: See Meralluride
MERCURY: See also Meralluride; Mercaptomerin
diuretic, advisable to control edema in pregnancy? 415
diuretic, self-injection by patients, [Krehbiel & Stewart] *250
lost in gastrointestinal tract, [Cantor] *560
toxicity: acrodynia, [Warkany] 600—ab; [Peters] 971—ab
MESENTERY
arteriomesenteric ileus, [Telford] 62—ab
Whipple's disease, role of adrenal cortex in, [Moehlig] 601—ab
MESSING, BERNARD J., JR., meperidine (demerol) addict, warning to doctors and hospitals, 750—BI
METABOLISM: See also under names of specific substances
basal, formulas for determining rate: modification of Read formula, 510
basal, hyperthyroidism without apparent hypermetabolism, [Werner & Hamilton] *450
National Institute of Arthritis and Metabolic Disease, 954; 1436
METALS: See also Aluminum; Copper; Gold; Iron; Lead; Tantalum
metallic salt hair dyes, reliability, 509
METASTASES: See Cancer
METEORISM: See Flatulence
METHADONE HYDROCHLORIDE
substituted for meperidine in drug addiction, 1363
METHAPYRILENE HYDROCHLORIDE
N.N.R., 1134
METHEMOGLOBINEMIA
aniline, in infants, from fresh marking ink on diapers, [Howarth] 1356—ab
cyanosis, due to corning extract used for maple syrup, [Tepperman & others] *923
etiology: pyridium [Crawford & others] *24
familial idiopathic, [Breakey] 1357—ab
METHIONINE
cicerism and CH factor, [Vivanco] 218—ab
treatment of diaper rash, (reply) [Lawson] 1546
treatment of liver disease, Italy, 276
METHOCEL: See Methylcellulose
METHONIUM
compounds in hypertension, [Locket] 1265—ab
compounds, reduction of surgical hemorrhage with, [Shackleton] 1449—ab
METHORPHINAN (dromoran)
analgesic effect in postoperative pain, [Keutmann] 679—ab
METHYL ALCOHOL
poisoning from drinking Korean sake, [Keeney] 401—ab
METHYL HEXANE AMINE (forthane)
name recognized by Council, 927
METHYL TESTOSTERONE: See Androgens
METHYL-BIS (Beta-Chloroethyl) Amine Hydrochloride: See Nitrogen Mustard
METHYLCELLULOSE (cellothyl; methocel)
barium modification with in diagnosis of intestinal lesions, [Marks] 62—ab
METHYLENE BLUE
treatment of familial idiopathic methemoglobinemia, [Breakey] 1357—ab
treatment of methemoglobinemic cyanosis, [Tepperman & others] *923
METHYLENEBIS (Hydroxycoumarin): See Bishydroxycoumarin
METHYLTHIONINE CHLORIDE: See Methylene Blue
METHYLTHIOURACIL
treatment, late results in thyrotoxicosis, [Iversen] 963—ab
METROPOLITAN LIFE INSURANCE CO.
project in weight reduction, 1142
MEXICAN Indian Root, diabetes victims warned of dangerous remedy, 1035
MEXICO
graduate medical education in, [Jordan] 1340—C (reply) [A.M.A. Council on Medical Education] 1340—C
MICHIGAN
University of: See University
MICROORGANISMS: See Bacteria
MICROSCOPY
electron, course on, New York, 568
problem of wearing glasses when working with microscope, 1544
MICROTONE ADC Audiometer, Model 53-A, 338
Hearing Aid, Model T-10, 1513
MIDFORCEPS Operation: See Labor
MIDWIFERY: See Obstetrics
MIDWIVES
cause of maternal death in rural South, [Ferguson] *1388
MIGRAINE: See also Headache
headache (film review) 496
MILITARY: See also Armed Forces; Army, U.S.; Aviation, U.S. Air Force; Korean War; World War II
Citations: See Korean War, Heroes
medicine, A.M.A. Sessions on, (minutes) 1043
medicine, history of, 1376—ab
medicine, International Congress of, 393; 862
medicine on the battlefield before 1900, New York Academy exhibit, 206
medicine scientists, French stamp honors, 1240
Preparedness: See Medical Preparedness
Training Act (universal), A.M.A. Board of Trustees report, 939
MILK: See also Cream
Biolac-Modified Powdered, 1029
borne, diseases, 53
borne poliomyelitis episode, [Lipari] 65—ab
diet (free) and dental caries, 415
Human: See also Lactation
human, effect of magnesium sulfate when ingested by mother on breast-fed baby, 298
human, mumps virus in and in milk of infected monkey, [Kilham] *1231
pasteurization to control bovine brucellosis, [Prince] 396—C
to control vomiting from aureomycin, 563—E
vitamins concentrate or milk not cause of osteoarthritis of spine, 1366
MILLER Prize: See Prizes
MILLIN Technic: See Prostatectomy
MINERAL: See also Copper; Gold; Iron; Lead
Oil: See Petrolatum, liquid
spirits, effects of inhaling, 1457
Water: See Health resorts
MINERS
coal, tuberculosis and pneumonoconiosis in, [Mann] 1172—ab
MINES
Pyrite, saturnism in, 394
MISCARRIAGE: See Abortion
MISSION: See Medical Mission
MISSOURI
-Kansas flood, 1431; 1436
MITCHELL, S. WEIR, neurologists, 243—ab
MITE Bite Fever: See Tsutsugamushi Disease
MITRAL VALVE
insufficiency, surgery for, [Bailey] 402—ab; 821—E
stenosis, [Bustamante Riofrio] 1448—ab
stenosis, anesthesia for commissurotomy for, [Keown & others] *446
MOBILIZATION: See Medical Preparedness
MOLASSES
blackstrap, merits, 1088
MOLD: See Fungi
MOLES: See Nevus
MONARCH BRAND
Dietetic Pack Fruits for Salad, 108
Dietetic Pack grapefruit sections; black raspberries; sweet green peas, 477
MONGOLISM: See Idiocy
MONILIASIS
diagnosis, technic for staining fungi in skin scraping with basic fuchsin, [Kligman & Mescon] *1563
vulvae, treatment, 1176
MONONUCLEOSIS, INFECTIOUS
[Deckart] 760—ab; 923—ab
neurologic complications, 1620
MONOPOLY: See Medicolegal Abstracts at end of letter M
MONUMENT to Physician: See Physicians, monument
MORAL Code: See Ethics, Medical
MORALS
aspects of intersexuality, [Hinman] *427
MORBIDITY: See Disease
Statistics: See Vital Statistics
MORPHINE
by mouth, 199
narcotic effect of, 809—ab
MORTALITY: See Automobiles, accidents; Death; Infants; Maternity mortality; Vital Statistics; under names of specific diseases
MOTH BALLS
poisoning, [Abelson] 873—ab
MOTHERS: See Families; Maternity; Pregnancy
Milk: See Milk, human
MOTION PICTURES: See Moving Pictures
MOTOR VEHICLES: See Automobiles; Medicolegal Abstracts at end of letter M
MOUTH: See Jaws; Lips; Teeth
Dryness of: See Xerostomia
Inflammation: See Stomatitis
MOVING PICTURES: See also Television
A. M. A. Committee on Medical Motion Pictures, effectiveness of motion pictures in medical teaching, 1328
cinematographic study of auricular fibrillation, [Prinzmetal & others] *1275
Civil Defense Picture added to A. M. A. Film Library, 565
selected films for hospital administration, 867
MOVING PICTURES, MEDICAL (REVIEWS)
Angry Boy, 1440
Circulation, 1255
Congenital Pulmonary Stenosis with Intact Interventricular Septum, 58
Diagnosis of Poliomyelitis, 1440
Epidemiology of Influenza, 281
Feelings of Depression, 496
Guard Your Heart, 1068
Hepaticojejunostomy Following Common Duct Injury, 398
House of Mercy, 1255
Intravenous Anesthesia and Tracheal Intubation, 281
Labor and Childbirth, 1440
Laboratory Diagnosis of Influenza, 496
Let's Have Fewer Colds, 959
Male Sex Hormone, 580
Medical Certification on Causes of Death, released by National Office of Vital Statistics, 1427
Migraine Headache, 496
Modest Miracle, 1255
Palmour Street: A Study in Family Life, 1255
Resistive Exercises in Physical Therapy for Thoracoplasty, 750
Rodney, 867
See Better: Healthy Eyes, 58
Stowaway, 1526
Surgical Anatomy of Femoral Triangle, 1440
Surgical Anatomy of Inguinal Area, 1526
Today and Tomorrow, 496
Welton, 750
MUCOUS MEMBRANES: See also Endometrium
reaction from penicillin locally, [Everett] *1314
reaction to aureomycin and chloramphenicol, treatment suggested, 767
"MUCOVISCIDOSIS" (pancreatic fibrosis), [Shwachman] 406—ab
MULTIPHASIC Screening: See Diagnosis
MULTIPLE Births: See Triplets; Twins
Sclerosis: See Sclerosis, multiple
MUMPS: See Parotitis, Epidemic

MURDER: See also Suicide
alcohol and violent death, [Spain & others] *334
police request help in finding murderer Edgar Alvin (Ted) Werner, [Morton] 57—C
MUSCLES: See also Cartilage; Tendons
Bone Formation in: See Myositis ossificans
Cardiac: See Myocardium
contraction, 1032—E
contraction unit, Sir Morton Smart's, 338
Dystrophy: See Dystrophy, muscular
improvement in, as guide to therapy in poliomyelitis, [Lowman] *1097
injury, paralytic poliomyelitis after, [Harrington] 1357—ab
neuromuscular transmission, acetylcholine theory, 1096—ab
pubococcygeus, active exercise of for urinary stress incontinence, [Counseller] *27; [Kegel] *915
relaxants in low-back disorders, 930—E
research by Dr. Albert Szent-Gyorgyi, Massachusetts, 383
Spasm: See Poliomyelitis; Spasm; Tetany
Sphincter: See Sphincter Muscles
Strength, Decrease of: See Myasthenia Gravis
MUSTARD, Nitrogen: See Nitrogen Mustard
MYANESIN: See Mephenesin
MYASTHENIA GRAVIS: See also Dystrophy, muscular
cardiac arrhythmia in, 76
of newborn, [Geddes] 407—ab
treatment, 415
MYCOBACTERIUM Tuberculosis: See Tubercle Bacillus
MYCOLOGY
medical, in Great Britain, [Georg] 395—C
MYCOSIS: See also Actinomycosis; Blastomycosis; Coccidioidomycosis; Moniliasis
collecting specimens for laboratory demonstration [Ajello] *1581
Cutaneous: See Dermatophytosis
penicillium infection of urinary tract, [Gilliam] 1161—ab
propagation of pathogenic fungi in yolk sac, [Brueck] 681—ab
MYELITIS: See Encephalomyelitis; Poliomyelitis
MYOCARDITIS
interstitial, in children, [Tedeschi] 872—ab
MYOCARDIUM
failure, hydrothorax in, 1458
Infarction: See also Thrombosis, coronary
infarction (acute), digitalis in, [Martin] *1008
infarction (acute), hemorrhagic pericarditis in, treated with bishydroxycoumarin, [Goldstein & Wolff] *616
infarction, ballistocardiography in, [Dock & others] *1284
infarction, complications of antabuse treatment of alcoholism, [Macklin & others] *1377
infarction, continued use of bishydroxycoumari after, not indicated, 221; (reply) [Wolffe] 1274
infarction, diagnosis, 298
infarction, diagnostic drifts, deceptions and misses, [Neal] *539
infarction, electrocardiographic diagnosis, [Merlis] 64—ab
infarction in coronary heart disease, [Gertler & others] *1291
infarction, shoulder-hand syndrome after, procaine block of stellate ganglion for, [Swan & McGowan] *774
infarction with rupture of ventricle, [Gans] 961—ab
Inflammation: See Myocarditis
injury at cardiac catheterization, [Biorck] 1352—ab
ischemia and its surgical relief, [Mason] 684—ab
rheumatic nodules in tuberculosis, [Valdés-Dapena] *1566
MYOMA: See Leiomyoma
MYOSITIS
ossificans after injury in football game, 76
rheumatoid, fibrositis and weather variations, 1274
MYOTONIA
Dystrophica: See Dystrophy muscular
MYVIZONE: See Amithiozone
adrenal cortex function in, [de la Balze] 1616—ab
MYXEDEMA
ascites due to, [Tracey & Donovan] *1511
heart in, radiologic and electrocardiographic study during thyroid therapy, [Capriglione] 67—ab

Medicolegal Abstracts

ASSOCIATIONS
medical; prepaid medical care plans; sponsorship upheld, 1067
medical; Sherman Anti-Trust Act in relation to, 1067
CHILDBIRTH
Caesarean section; delay in performing, 1154
prenatal injuries; liability for, 1527

Medicolegal Abstracts—Continued

CHILDBIRTH—Continued
stillbirth; diabetes in relation to, 1527
stillbirth; diet in relation to, 1527
CHIROPODY
drugs; right to use, 281
licenses; revocation; expert testimony rather than opinion of board member's necessary, 281
witnesses, expert; qualifications to testify concerning roentgen ray burn, 1155
CHIROPRACTIC
office maintained in home; restriction in deed, 866
COMPENSATION OF PHYSICIANS
emergency services; parent's liability for additional treatment, 959
minor; liability for medical services, 398
minor; parents' liability for services rendered during and following emergency, 959
parent; liability for medical services, 398; 959
DIABETES
stillbirth in relation to, 1527
DIET
stillbirth in relation to, 1527
DRUGS
chiropodist; right to use, 281
mechanotherapist; right to use, 397
vitamins as constituting, 397
DRUNKENNESS
chemical tests; admissibility, 867
EVIDENCE
drunkenness; chemical tests; admissibility, 867
scientific tests; disagreement as to reliability; effect on admissibility, 867
scientific tests; drunkenness; admissibility, 867
witnesses; expert; chiropodist's qualifications to testify concerning roentgen ray burn, 1155
HOSPITALS FOR PROFIT
burns; electro cautery apparatus, 58
burns; hot water bottle, 1439
electro cautery apparatus; burns, 58
nurses; needle fragment left in patient, 1068
nurses; negligence of, 58; 1439
nurses; payment of fee by patient; effect of, 1439
HOSPITALS, GOVERNMENTAL
liability in general; right to sue and be sued as affecting, 580
pay patient; liability to, 580
status; criteria of, 580
status; payments by patients as affecting, 580
HOSPITALS, IN GENERAL
loud speakers; injunction to prevent use, 1439
nuisances; hospital may enjoin broadcast, 1439
MALPRACTICE
burns; roentgen rays, 1155
Caesarean section; delay in performing, 1154
childbirth; Caesarean section; delay in performing, 1154
evidence; res ipsa loquitur, 1155; 1341
evidence; witnesses, expert; necessary for, 1154; 1155; 1341
foreign bodies; needles, 1068; 1255
foreign bodies; sponges, 1341
needles; fragment left in patients, 1068; 1255
needles; roentgenograms; failure to make, 1255
nurses; hospital; liability for negligence of, 58
nurses; hospital; needle fragment left in patient, 1068
roentgen rays; burns, 1155
roentgenogram; failure to make; foreign bodies, 1255
sponges left in patient, 1341
tonsillectomy; sponges left in patient, 1341
MEDICAL PRACTICE ACTS
drugs; mechanotherapists right to use, 397
examining boards; rules and regulations; validity, 397
licenses; revocation; expert testimony rather than opinion of board member's necessary, 281
mechanotherapy; drugs; right to use, 397
mechanotherapy; minor surgery; what constitutes, 397
mechanotherapy; vitamins; as drugs, 397
surgery; minor; what constitutes, 397
MEDICAL SERVICES
prepaid medical care; Sherman Anti-Trust Act in relation to, 1067
MONOPOLY: See Sherman Anti-Trust Act
MOTOR VEHICLES
drunken drivers; chemical tests; admissibility, 867
NUISANCES
injunctions; hospital may enjoin broadcast, 1439
loud speakers; hospital may enjoin broadcast, 1439
NURSES
hospital; negligence of, 58; 1439
special; payment of fee by patient; effect of, 1439
PRENATAL INJURY: See Childbirth
SHERMAN ANTI-TRUST ACT
medicine; practice of in relation to, 1067
STILLBIRTH: See Childbirth
TRAUMA
disc; rupture of in relation to industrial accident, 673
stillbirth in relation to 1527
VITAMINS
as drugs, 397
WORDS AND PHRASES
"drugs," 397
"governmental function," 580
"minor surgery," 397
"necessaries," 398
"public corporation," 580
"residence purposes only," 866
"special nurse," 1439
WORKMEN'S COMPENSATION ACTS
medical treatment; physicians; change by employee, 673
spine; ruptured disc in relation to trauma, 673
ZONING LAWS
office maintained in home by chiropractor, 866

N

N.N.R.: See under names of specific products
NAPHTHA
effects of inhaling mineral spirits, 1457
NAPHTHALENE
moth ball poisoning, [Abelson] 873—ab
NARCOTICS: See also Harrison Narcotic Act; Morphine
addict: Bernard J. Messing Jr., warn doctors and hospitals, 750—BI
addict, diaphragmatic flutter with angina pectoris symptoms in malingerer, [Craddock] *1315
addiction, hospital for juvenile addicts, 1034
addiction, increase in young people, 275
addiction, methadone can be substituted for meperidine in, 1363
effect of morphine, 809—ab
NASAL: See Nose
Sinuses: See Sinuses, Nasal
Tube: See Duodenal Tube
NASOPHARYNGITIS: See Colds
NASOPHARYNX: See also Adenoidectomy
bleeding from, 1363
cancer, roentgenotherapy, [Antoniazzi] 1083—ab
irradiation, x-rays vs. radium for benign conditions, [Garland & others] *454
NATIONAL: See also American; International; list of Societies at end of letter S
Advisory Committee affiliated with the VA, 667
Advisory Committee for Blind, 1034
Blood Program: See Blood Transfusion
Board of Medical Examiners, (newer technics for examinations) 201—E; (consolidated examinations with state boards) *345; *346; (description) *373; (licensing boards endorsing certificates) *373; (examinations: 1916-1921) *373; (examinations: 1922-1950) *374; (diplomates from individual medical schools, 1950), *375; (licenses granted on bases of certificates, 1950) *375
Cancer Institute, [Connery] *578; [Heller] 1248—C
Conference on Chronic Disease, Preventive Aspects, 652—E
Congress of Tropical and Subtropical Medicine (8th) Italy, 212
Defense: See Armed Forces; Civilian Defense; Medical Preparedness
Editorial Association, tribute to doctors from the press, 380—E; 841
Education Campaign of A.M.A.: See American Medical Association
Emergency Medical Service, A.M.A. Council on: See American Medical Association
Foundation for Infantile Paralysis: See Foundations
Fund for Medical Education: See Foundations
Health Service (England), paying for, 53
Institute of Arthritis and Metabolic Disease, 954; 1436
Malaria Society, symposium on eradication of malaria, 1599—E
Medical Council formed, 661
Muscular Dystrophy Foundation Committee, 740
NATIONS, United: See United Nations
NATUROPATHS
examined in basic science in 1950, *372
NAVEL CORD: See Umbilical Cord
NAVY, UNITED STATES: See also Armed Forces
clinical psychologists needed, 51
flight surgeons, class of, 1606
Industrial Health Conference a success, 274
Medical Center, guest lecturer at, 1606
research on burns by, 51
Smith (Harold Wellington) lecture created, 51
surgical teams at front in Korea, 51
training for volunteer reserve personnel, 746
NECK: See Throat

NECROBIOSIS
lipoidica, 298
lipoidica diabeticorum, 508
NECROLOGY: See Deaths at end of letter D
NECROSIS: See Kidneys; Liver; Pituitary
NECROSPERMIA: See Spermatozoa
NEGROES
dental hypoplasias in congenital syphilis, [Beecher] 1075—ab
sickle cell anemia and pulmonary tuberculosis, [Herrera Cabral] 292—ab
NEOMYCIN
treatment, in abdominal surgery, [Poth] 757—ab
treatment of streptomycin resistant tuberculosis, [Carr] 1071—ab
NEOPLASMS: See Cancer; Sarcoma; Tumors; under region or organ affected
NEOSTIGMINE (prostigmine)
test in early pregnancy, 415
treatment of myasthenia gravis, 415
NEPHRITIS
glomerular (acute fatal) from rhus toxin, [Shaffer & others] *1570
glomerular, periarteritis nodosa complicating, [Kipkie] 868—ab
glomerular, piperoxan hydrochloride (benzodioxan) test, false positive reaction, [Place] *1227
Hypertensive Chronic Vascular: See Nephrosclerosis, arteriolar
liver function in Bright's disease, [Bastagli] 69—ab
NEPHROLITHASIS: See Kidneys calculi
NEPHROSCLEROSIS
malignant, role of somatotropic hormone, [Selye] 290—ab
NEPHROSIS: See Kidneys, disease
NERVES: See also Nervous System; Neur-
Anesthesia: See Anesthesia
Block: See also Nervous System, Sympathetic
block, diagnosite and therapeutic, [Adams] *801
block, diagnostic and therapeutic: necessity for roentgenograms, [Pender & Pugh] *798
Deafness: See Otosclerosis
Ganglion: See Ganglion
neuromuscular transmission, acetylcholine theory, 1096—ab
Paralysis: See Paralysis
peripheral, injuries from injections, [Kolle] 1079—ab
peripheral, injuries of upper extremities, [Perret] *556
phrenic, crush, to relieve hiccups in coronary thrombosis [Rubin & others] *1418
phrenic, electrical stimulation in asphyxia neonatorum, [Cross] 1449—ab
pneumogastric, tumor in von Recklinghausen disease, Turkey, 1437
pudendal, operations for bladder dysfunction in paraplegia, [Bors] *226; *228
Reflex: See Reflex
splanchnic, exeresis in gastroduodenal ulcer, [Picard] 972—ab
Surgery: See under subheads of Nerves; Neurosurgery
Syphilis: See Neurosyphilis
ulnar, occupational paralysis, [de Jong] 503—ab
ultrasonic energy effect on, [Anderson] 677—ab
vagectomy combined with sympathectomy, effect on gastrointestinal tract, [Bingham & others] *1406
vagotomy for marginal ulcer, [Crile] 61—ab
vagotomy for ulcerative colitis and regional enteritis, [Eddy] 216—ab
vagotomy, postoperative study, [Walters] 1077—ab
vagotomy, technic in duodenal ulcer, [Crile] 1077—ab
NERVOUS SYSTEM: See also Brain; Ganglion; Nerves; Nervous System, Sympathetic; Spinal Cord
clinical observations and scientific analysis, 720—ab
complications of infectious mononucleosis, 1620
Disease: See Encephalomyelitis
disorders in Cushing syndrome, [Spillane] 1538—ab
epidemic keratoconjunctivitis relation to, 930—E
Surgery: See subheads under Nerves; Neurosurgery; Sympathectomy
Syphilis: See Neurosyphilis
NERVOUS SYSTEM, SYMPATHETIC
cervical block in cerebral concussion by procaine, [Blumensaat] 1359—ab
hormonal cerebral vasopressor substance, 1326—E
humeroscapular periarthritis: autonomic function tests, [Bergholt] 1453—ab
Surgery: See Sympathectomy
NETHERLANDS
mentality of Danes compared with Dutchmen and Finns, 276
NEUBERG Medal: See Prizes
NEURITIS
toxic, during pregnancy, 299
NEUROAPPENDICOPATHY, [Isaacson] 960—ab
NEURODERMATITIS
premenstrual improvement; suggest progesterone treatment, 300
treatment, ACTH, in atopic dermatitis, [Randolph] 676—ab
treatment, ACTH intravenously, [Mandel & others] *546
NEUROFIBROMATOSIS
related lesions, [Inglis] 603—ab
tumor of pneumogastric nerve associated with, Turkey, 1437
NEUROLOGY: See also Nerves; Nervous System; Neur-
"cradling period" of: W. A. Hammond and S. W. Mitchell, 243—ab
Surgery in: See Neurosurgery
NEUROPSYCHIATRY
disorders of children of tuberculous, syphilitic, malarial, or alcoholic parents, [Schachter] 762—ab
Illinois Neuropsychiatric Institute in Chicago transferred to U. of Illinois, 1516
NEUROPSYCHOSIS: See Psychoneurosis
NEUROSIS: See Psychoneurosis
NEUROSURGERY: See also Brain surgery; Nerves; Sympathectomy
in rehabilitation of paraplegics, [French] *223
NEUROSYPHILIS: See also Tabes Dorsalis
treatment, penicillin, [Dattner] 286—ab; [Shapiro] 679—ab
treatment, penicillin and artificial fever, [Epstein] 751—ab
NEUTROPENIA
Felty's syndrome, [Hutt] 1083—ab
NEVUS
spider nevi, 879
NEW GROWTH: See Tumors
NEW YORK
Academy of Medicine, (statement on antihistamines) *495; (Library services) 739; (clarifies statement on immunization) 856; 1240
City, study of maternal deaths in during 1918 and 1949, [Faison] *1393
Research Foundation of State University of, 205
State Society of Anesthesiologists, Placement Committee of, 484
NEWBORN: See Infants, Newborn
NEWSPAPERS: See also Journals
tribute to doctors from the press: National Editorial Association, 380—E; 841
NICOTINAMIDE: See Acid, nicotinic
NICOTINE: See Tobacco
NICOTINIC ACID: See Acid, nicotinic
NIEHOFF, HATTIE A., (retirement) 839; (presentation of purse to), 945
NIGERIA
University of: See University
NIGHT BLINDNESS
treatment, vitamin A and vitamin B_2, [Nidermeier] 760—ab
NILSON, GUNNAR, death, Sweden, 1524
NITRATES
in well water, cyanosis from, [Ewing] 1356—ab
NITRITES
methemoglobinemic cyanosis from corning extract used for maple syrup, [Tepperman & others] *923
NITROGEN
nonspecific, utilization of, 1137—E
oxides of, acute edema of lung due to, [Bothelho] 1269—ab
NITROGEN MUSTARD
congener: triethylene melamine (TEM) treatment of cancer, 480—E
treatment of advanced cancer of lungs, [Ayers] 65—ab
treatment of asthma, [Jiménez Díaz] 408—ab
treatment of Hodgkin's disease, lymphosarcoma, leukemia and similar diseases, [de Lorenzo] 1614—ab
treatment of psoriasis, [Gómez Orbaneja] 1269—ab
treatment of tuberculous lymphadenitis, [Del Dotto] 1617—ab
triethylene melamine relation to, [Kravitz & others] *1595
NITROUS OXIDE
Anesthesia: See Anesthesia
NODULES: See Granulomatosis
NOISE: See also Sound
tinnitus resulting from acoustic trauma, 1178
NOISES in the Head: See Tinnitus
NOMENCLATURE: See Terminology
NOR-EPINEPHRINE: See Arterenol
NORTHWESTERN UNIVERSITY
Abbott professors named, 1053
presents honorary degrees, 855
NORWEGIAN
Medical Association, unification and control of medical certificates, 956
NOSE: See also Nasopharynx; Otorhinolaryngology
Accessory Sinuses: See Sinuses, Nasal
Colds: See Colds; Hay Fever
discharge, spontaneous cerebrospinal rhinorrhea, remission after dye injection, [Kahn] *728
NOVOCAIN: See Procaine Hydrochloride
NUCLEAR Power: See Atomic Energy
NUCLEUS Pulposus: See Spine, intervertebral disk
NUISANCES: See Medicolegal Abstracts at end of letter M
NUMBNESS
of fingers, 980
NUPERCAINE: See Dibucaine
NURSES AND NURSING: See also Medicolegal Abstracts at end of letter M
A.M.A. statement of principles for improvement and better distribution of nursing services, 836
Books concerned with: See Book Reviews at the end of letter B
hospital statistics on nursing service: number of graduate and student nurses, *119; *120; *121
nursing homes: their part in community's attack on chronic illness, 562—E
practical, program for training, D. C., 946
practical, schools of, *122
practical, training and utilization of, *120
psychiatric, course in, at St. Elizabeths Hospital, 211
recruitment goal for U.S. Army, 391
recruitment program discussed by A.M.A. Board, 262
schools of nursing, statistics on, *119; *120; *121; (practical nursing) *122
shortage critical, N. C., 1140
shortage of nurses, 820—E
staff, facilities for care of newborn in hospital, [Slobody & Wallace] *1462
staff, improving patient care in labor and delivery suite, [Gold & others] *1459
tuberculosis in hospital and sanatorium personnel, [Childress] *1188
NUTRITION: See also Diet; Food; Infants, feeding
A.M.A. Council on Foods and Nutrition: See American Medical Association
Community Nutrition Institute (5th), New York, 384
deficiency, diagnostic drifts, deceptions and misses, [Neal] *539
deficiency, is hearing loss due to? [Lobel] 1441—ab; 1528—ab
deficient diet, Italy, 576
disorders, chloramphenicol in, [Weisse] 69—ab
intravenous use of alcohol in surgical patient, [Kark & Sokol] *21
new department of, Pa., 486
value of blackstrap molasses, 1088
value of Yogurt, 221
Vitamins in: See Vitamins
NYCTALOPIA: See Night Blindness
NYLON
arthroplasty in arthritis, [Kuhns] 1352—ab
NYMPHOMANIA: See Libido

O

OAK, Poison: See Rhus
OBESITY
complications: necrobiosis lipoidica, 298
treatment, high-protein, very low-carbohydrate diet, [Billig] *1180
treatment, "performance index" to estimate effectiveness of reducing regimens, 9—ab
treatment, slimming by television, England, 863
weight reduction project by Metropolitan Life Insurance Co., 1142
OBITUARIES: See list of Deaths at end of letter D
OBSTETRICS: See also Abortion; Cesarean Section; Labor; Midwives; Pregnancy; Puerperium
American Board of: See American Board
Anesthesia in: See Anesthesia
poor, 1088
Third Annual Telvised Postgraduate Conference, Illinois, 1516
OCCUPATIONAL
Disease: See Industrial Diseases
Health: See Industrial Health
OCCUPATIONAL THERAPY
schools of, list of, approved by A.M.A. and American Occupational Therapy Ass'n., *198; 201—E
OCULAR Symptoms; Tests: See Eyes; Vision
ODOR
prevention: boric acid poor deodorant, 1090
OFFICERS: See Armed Forces; Army, U. S.; Aviation, U. S. Air Force; Medical Preparedness; Navy, U. S.
OHIO
State University, Health Center dedicated, 485
syphilis and gonorrhea as cause of blindness in, [Freeble & Donohue] *1500

OIDIUM Albicans Infection: See Moniliasis
OIL: See also Liver oil
Aspiration Pneumonia: See Pneumonia, lipid
Mineral: See Petrolatum, liquid
of chenopodium treatment of ascariasis in infants, merits and disadvantages, 416
vegetable oil base (B-13) as DDT emulsifiers, Brazil, 1438
OLD AGE
American Geriatrics Society, 207
ankylosing hyperstosis of spine in, [Forestier] 502—ab
Annual Conference on Aging (4th), Mich., 484
asthma in; problems; clinical management, [Tuft] *1480
care of the aged, Norway, 494
diaphragmatic flutter with symptoms resembling angina pectoris in malingerer, [Craddock] *1315
employability and, [Levine] 61—ab
institute of geriatrics, N. Y., 948
International Gerontological Congress, 1603
Mayor's Advisory Committee for the Aged, New York, 948
peptic ulcers in aged persons, [ten Kate] 1168—ab
Physicians attaining: See Physicians, veteran
problems of aging, 736; 1034; 1427
psychoses of, [Freyham] 1611—ab
rheumatic heart disease in patients over 60, [Appel & Kossmann] *1474
senile anorexia, [Vinther-Paulsen] 1453—ab
study of geriatric problems, Oklahoma, 739
what do the elderly think and need? Denmark, 749
OLECRANON: See Elbow
OLFACTORY Sense: See Smell
OMENTUM
great, new concepts concerning, Italy, 748
OPERATION: See Surgery; under names of specific organ and disease
OPHTHALMIC ointment base, 691
OPHTHALMOLOGY: See also Eyes; Vision
Association for Research in, joint meeting with A.M.A. Section, 1046
fellowship in, Pa., 1141
hospitals, statistics, *115
Swiss Association, 43rd convention, 1246
OPIUM: See also Morphine
opiates and pancreatic enzymes, 1032—E
ORANGE
juice concentrate (frozen), A.M.A. Council report, 35; 37—E
juice, Donald Duck Frozen Concentrated, 108
ORATIONS: See Lectures
ORBIT
Transorbital Leukotomy: See Brain surgery
ORCHESTRA: See Physicians, avocations
ORGANIZATIONS: See Societies, Medical; list of Societies and Other Organizations at end of letter S
ORGANIZED LABOR: See Industrial Trade Unions
ORGANIZED MEDICINE: See American Medical Association; Societies, Medical
ORGANS: See Viscera
ORGASM
vaginal, 978
ORNITHOSIS: See Psittacosis
ORTHOFORM
dermatitis from local anesthetics, [Lane & Lulkart] *717
ORTHOKINETICS
treatment of hypertrophic osteoarthritis, 415
ORTHOPEDICS: See also Bones; Foot; Fractures
International Orthopaedic Congress (5th), 44
New Jersey Orthopaedic Society award in, 1140
specialist looks at everyday medical care in industry, [Billig] *1179
surgery, refrigerated homogenous bone transplants for, [Wilson] 1159—ab
OSCILLOGRAM
study on exposed heart, especially in auricular fibrilation, [Prinzmetal & others] *1275
OSTEOARTHRITIS
of spine, vitamins concentrate not cause of, 1366
rheumatoid arthritis or? 1457
treatment, procaine hydrochloride, [Berger] 679—ab
OSTEOARTHROPATHY
hypertrophic, in cancer of lung, [Pattison & others] *783
OSTEOMYELITIS
chronic: chemotherapeutic and antibiotic treatment, 297
OSTEOPATHS
examined for license, *344
examined in basic science, *372
failures before state boards, *347
osteopathy a limited practice, opinion of attorney general, W. Va., 1141
registered by state boards, 1945-1950, *361; *362
OSTEOPOROSIS
demineralization of bone and, 765
OTARION Hearing Aid, Model G-1, (Whisperwate), 338
OTITIS, External: See Ear inflammation
OTITIS MEDIA
treatment, polymyxin B and polymyxin E, [Kagan] 678—ab
OTOLARYNGOLOGY: See Ear; Larynx
OTORHINOLARYNGOLOGY
ear, nose and throat hospitals, statistics on, *115
OTOSCLEROSIS
etiology: nutritional deficiency, [Lobel] 1441—ab
pregnancy and; abortion indicated? 1619
treatment, long-term results of fenestration surgery, [Adin] 674—ab
treatment, surgical, [Cawthorne] 1079—ab
OTTAWA, University of: See University
OUTPATIENT Service: See Hospitals
OVARY: See also Gonads
cancer, surgery for, [Novak] *881
cancer treatment, 509
cysts, surgery for, [Novak] *881
surgery, physiologic and pathologic principles in, [Novak] *881
tumors, Krukenberg, [Berens] 1609—ab
tumors, Meig's syndrome, role of adrenal tumor in, [Moehlig] 601—ab
OVERVENTILATION: See Respiration, hyperventilation
OVERWEIGHT: See Obesity
OVUM: See also Eggs
possibility of more than one ovum in a month; natural birth control, 221
OXOPHENARSINE HYDROCHLORIDE (mapharsen)
treatment plus penicillin in primary syphilis, [Jones] 602—ab
OXYGEN: See also Pneumoperitoneum; Pneumothorax, Artificial
administration when intratracheal tube fails with chest open, [Brantigan] 1534—ab
air lock (positive pressure) to resuscitate asphyxiated newborn, [Bloxsom] *1120
cerebral pneumatotherapy with pure oxygen, [Abély] 1171—ab
in Blood: See Blood
Quotient: See Metabolism, basal
Resp-Aid Oxygen Mask, Model 300, 108
therapy, M.S.A. Demand Pneophore, 1135
Therapy Regulator, Linde Type R-501, 1235
OXYURIASIS
treatment, 1458

P

PAS: See Acid, p-aminosalicylic
PABLUM
barley cereal; rice cereal, 1029
PAECILOMYCES
eye infection from cornstalk, 1087
PAGET'S Disease: See Cancer, precancerous condition
PAIN: See also Arthralgia; Backache; Headache; under names of specific organs and regions
"burning" pain in spinal cord injuries, [Pollock & others] *1552
clinical observations and scientific analysis, 720—ab
"growing pains": limb pains in children, [Naish] 1614—ab
Paracardiac: See Thorax
precordial: See also Angina Pectoris; Arteries, coronary; Thrombosis, coronary
precordial, sudden severe, 689
preparing children for, 925—ab
Relief of: See also Anesthesia; Nerves, block; Sympathectomy
relief of, alcohol intravenously in surgical patient, [Kark & Sokol] *21
relief of, postoperative use of dromoran, [Keutmann] 679—ab
relief of, prefrontal lobotomy for, [Javier] 875—ab
relief of, sodium gentisate for, [Batterman] 1536—ab
PAINTING: See Art
PALATE
cleft, rehabilitation, 570
PALESTINE: See Israel
PALSY
Cerebral: See Paralysis
PAN AMERICAN
Congress against Tuberculosis, 857
Congress of Sports Medicine, (first), 1339
Congress on Medical Education, 44
Sanitary Bureau, (budget) 741
PANCREAS: See also Diabetes Mellitus
aberrant, of stomach, [Benner] 758—ab
atrophy, in hemochromatosis, [Doane & others] *926
disease, sphincterotomy for, 38—E
enzymes and opiates, 1032—E
hyalinization of islands of Langerhans in fatal diabetes, Opie's report, 787—ab
inflammation (chronic), treatment, 1178
"mucoviscidosis" (pancreatic fibrosis), [Shwachman] 406—ab
pseudocysts, [Brilhart] 676—ab
Secretion: See Insulin
tumors, cystadenoma, [Mozan] 676—ab
PANCREATITIS: See Pancreas inflammation
PANCYTOPENIA: See Blood cells
PANHYPOPITUITARISM: See Pituitary
PANHYSTERECTOMY: See Uterus, excision
PANNICULITIS
febrile relapsing nonsuppurative, (reply) [Arnold] 300; [Eisaman & Schneider] *1417
PAPAVERINE
treatment for pyloric spasm in infants, [Mayerhofer] 502—ab
PAPER: See also Newspapers
chromatography of urine in pregnancy and preeclampsia, [Zilliacus] 1082—ab
"White Paper": See National Health Service, England
PAPILLOMA
of lactiferous ducts, localization, [Kastrup] 1453—ab
recurrent, of urethra, podophyllin treatment indicated? 1177
PARA-AMINOBENZOIC ACID: See Acid, p-aminobenzoic
PARA-AMINOSALICYLIC ACID: See Acid p-aminosalicylic
PARACARDIAC Pain: See Thorax
PARAFFIN, Liquid: See Petrolatum, liquid
PARAGANGLIOMA: See Pheochromocytoma
PARAHYDROXYBENZOIC Acid: See Acid
PARALYSIS: See also Hemiplegia; Paraplegia
cerebral, Alpha Chi Omega scholarships in, 1333
cerebral, and Rh factor, [Sobel] 1161—ab
cerebral palsy center, New York, 484
cerebral palsy scholarships, 857
etiology: immunizing injections, [Bousfield] 1450—ab
etiology: injections, [Glückert] 874—ab
etiology: tetanus antitoxin, [Davis] 405—ab
Infantile: See Poliomyelitis
occupational, of ulnar nerve, [deJong] 503—ab
of Bladder: See Bladder, neurogenic
periodic; lowered serum potassium: potassium salts treatment, [Hammes] *1401
Respiratory: See Poliomyelitis
PARAMETRIUM
hydatid cyst in, Turkey, 671
PARANASAL SINUSES: See Sinuses, Nasal
PARANOIA: See Psychosis, paranoia
PARAPLEGIA
A.M.A. symposium on physical medicine and rehabilitation for, [French] *223; [Bors] *225; [Comarr] *229; [Dinken] *232; (discussion) 234
decubitus ulcers in patients with, [Conway] 680—ab
neurosurgery in rehabilitation of paraplegics, [French] *223
physical treatment and rehabilitation of paraplegic patient, [Dinken] *232
reconstructive surgery for decubitus ulcer complicating spinal cord injury, [Comarr] *229
urological aspects of rehabilitation in spinal cord injuries, [Bors] *225
PARASITES
Intestinal: See Intestines
PARATHION
poisoning in citrus spray operations, [Williams] 1444—ab
PARATHYROID
hyperparathyroidism, [Hellström] 1081—ab
hyperparathyroidism, bone cysts, 690
tissue (cultivated), grafting in postoperative tetany, [Kooreman] 682—ab
PARATYPHOID
treatment, chloramphenicol, [Marie] 762—ab
PARAVOX Hearing Aid, Model J (Tiny-Myte) 1135
PARENTS: See Maternity; Paternity
PARK (William H.) Fellowship: See Fellowships
PAROTITIS, EPIDEMIC (mumps)
virus in human milk and in milk of infected monkey, [Kilham] *1231
PARROTS Fever: See Psittacosis
PARTURITION: See Labor
PAS: See Acid, p-aminosalicylic
PASTEURIZATION: See Milk
PATENTS
A.M.A. Judicial Council report, 842
PATERNITY
doubtful, phenylthiocarbamide test in, [Cardullo] 1350—ab
PATHOLOGISTS
American Society of Clinical Pathologists, list of schools for medical technologists approved by A.M.A. and, *185; 201—E
in charge of hospital laboratories, 1126—ab
PATHOLOGY: See also Disease
American Board of: See American Board
Armed Forces Institute of, (picture) 1245
clinical, International Congress of, London, July 16-20, 741
PATIENTS: See also Disease; Medical Service; Surgery; under names of specific diseases
Chronically Ill: See Disease, chronic
Convalescence: See Convalescence
fate, physician's features should not betray, 614—ab
Hospital: See Hospitals
medical triangle, 815—ab

PATIENTS—Continued
possible for surgeon to transmit infectious hepatitis to? 607
referring your patient to a psychiatrist, [Flumerfelt] *1589
significance of personal problems: doctor-patient relationship, 991—ab
to tell or not to tell that he has cancer? [Kline & Sobin] *1547
Transport of: See Ambulances
PAUL Lewis Laboratories Prize: See Prizes
PAULA SOUZA, G., death, Brazil, 1061
PAULLIN, JAMES E., A.M.A. past president, address by, 831
PAY: See Wages
PEAS
sweet green, Monarch Brand Dietetic products, 477
PECTIN
treatment of diarrhea in infants, 416
PEDIATRICS: See also Children; Infants
Colombian Congress of (first), 56
symposium on, New York, 1053
PELVIS: See also Hip; Ilium; Pubic Bone
cancer, detection of, biopsy-smear study [Jones] *1197
inflammatory disease, chloramphenicol for, [Stevenson] 1137—ab
roentgen study in midforceps operation, [Weinberg] *1465
structures, pneumoperitoneum in study of, [Maxfield] *920
PENICILLIN
factory in India, 662
G crystalline potassium tablets, NNR., (Premo) 1134
G crystalline, response of megaloblastic anemia of pregnancy to, [Foy] 1539—ab
toxicity, reactions, 980
toxicity, reactions from local use, [Everett] *1314
toxicity: tuberculous abscesses and empyema, [Arev] 1170—ab
Treatment: See also Anemia, megaloblastic; Gonorrhea; Neurosyphilis; Staphylococcus infection
treatment, dosage schedule, in syphilis, [Bruetsch] 396—C; [Marshall] 1062—C
treatment, intramuscular, streptomycin and penicillin plus sulfadiazine orally in meningitis in infant, [Bonaba] 1164—ab
treatment, massive doses, plus streptomycin in endocarditis, [Stachlin] 1170—ab; [Kleinfelder] 1173—ab
treatment, oral, in lobar pneumonia, [Harvey] 753—ab
treatment plus artificial fever in neurosyphilis, [Epstein] 751—ab
treatment plus mapharsen and bismuth in primary syphilis, [Jones] 602—ab
treatment plus streptomycin in enterococcic endocarditis, [Robbins] 752—ab
treatment, preventive, of endemic scarlatina, Sweden, 1339
treatment, preventive, of rheumatic fever, [Rammelkamp] 1351—ab; [Massell & others] *1469
treatment, procaine penicillin implantation in syphilis, [Prunes] 1170—ab
treatment, resistance to, [Grace] 1151—C
treatment, resistant endocarditis treated by combined penicillin and streptomycin, [Cates] 1165—ab
treatment, resistant strains of staphylococci, [Rountree] 761—ab
treatment, risks of external application, [Tzanck]
treatment, sensitivity in staphylococci, [Sherris] 603—ab
treatment vs. arsenic in early and late congenital syphilis, [Debré] 1359—ab
PENICILLIUM
mold infection of urinary tract, [Gilliam] 1161—ab
PENIS
cancer, metastatic from rectum, [Cattell & Mace] *1230
fibrous cavernositis (Peyronie's disease) 75; 1620
lesions that simulate ringworm, 1089
PENSIONS
A.M.A. resolution on pension plans by corporations, 849
PENTAMIDINE
campaign against sleeping sickness in Belgian Congo, 1060
PENTOSES
pentolysis in diagnosis of cancer, [Menkès] 1266—ab
PEPTIC ULCER
adrenals and, [Biro] 969—ab
coronary disease in relation to, [Feldman] 498—ab
Curling's ulcer, 107—ab
diagnosis clinical aspects of gastric and duodenal ulcers, [Chêne] 1358—ab
diagnosis of gastric ulcer, errors in, [Palmer] 967—ab
duodenal ulcer in different races, 689
gastric ulcer in newborn infant, 1365
gastroduodenal ulcer and work, Italy, 576
PEPTIC ULCER—Continued
hemorrhage (acute), conservative v. combined conservative-operative treatment, [Pedersen] 762—ab
hemorrhage, surgical treatment of bleeding gastric and, [Køster] 762—ab
hemorrhage tendencies from use of cortisone and ACTH, 1273
in aged persons, [ten Kate] 1168—ab
liver function tests in, [Goldbloom & others] *1593
of small intestine, [Shea] *1490
perforated double duodenal ulcer after burns, [Mynhardt] 1084—ab
perforated, expectant treatment, [Beattie] 1354—ab
perforated gastric and duodenal ulcer, statistics, Sweden, 277
surgical treatment, combined sympathectomy and vagectomy effect on gastrointestinal tract, [Bingham & others] *1406
surgical treatment, exeresis of splanchnic nerve in gastroduodenal ulcer, [Picard] 972—ab
surgical treatment of duodenal ulcer, [Stevens] 1345—ab
surgical treatment of gastric ulcer, Denmark, 1607
surgical treatment, vagotomy and gastroenterostomy in duodenal ulcer, [Crile] 1077—ab
surgical treatment, vagotomy and pyloroplasty for duodenal ulcer, [Dorton] 1162—ab
surgical treatment, vagotomy for marginal ulcer, [Crile] 61—ab
temperature and sedimentation reaction in, [Mathisen] 761—ab
treatment, banthine, [McHardy] 965—ab
treatment, enterogastrone, [Bone] 61—ab; (ineffective), [Wollum] 1532—ab
why is it rare during pregnancy? [Schmid] 504—ab
PERFORATION: See Esophagus; Peptic Ulcer; Pharynx
PERIARTERITIS
nodosa, 1098—ab
nodosa, ACTH intravenously for, [Mandel & others] *546
nodosa: late results with ACTH, [Levin] 1260—ab
nodosa, pathogenesis: occurrence with glomerulonephritis, [Klpkie] 868—ab
nodosa, polyarteritis nodosa, [Griffith] 1073—ab
nodosa, role of somatotropic hormone in, [Selye] 290—ab
nodosa, trial of cinchoninic acid derivative, [Rennie] 683—ab
PERIARTHRITIS
humeroscapular: autonomic function tests, [Bergholt] 1453—ab
PERICARDIECTOMY: See Pericarditis, tuberculous
PERICARDITIS
acute, nonspecific, [Carmichael] 871—ab
hemorrhagic, in acute myocardial infarction treated with bishydroxycoumarin, [Goldstein & Wolff] *616
tuberculous (active), pericardiectomy for [Holman & Willet] *1
tuberculous, streptomycin for [Carroll] 1609—ab
PERICARDIUM
effusion, role of adrenal cortex in, [Moehlig] 601—ab
Inflammation: See Pericarditis
massive hemorrhage into, in fatal acute hepatitis, [Elsen & Markovich] *1414
talcum in pericardial cavity for coronary occlusion, 768
PERINEOMETER
physiologic therapy for urinary stress incontinence, [Kegel] *915
PERINEUM
endometriosis, [Dubas] 683—ab
PERIODICALS: See Journals
PERIODICITY
arthralgia in 23 members of 5 generations of family, [Reiman & Angelides] *713
periodic paralysis, [Hammes] *1401
PERITENDINITIS: See Tendons
PERITONEUM: See also Hemoperitoneum; Omentum; Pneumoperitoneum
effusion, role of adrenal cortex in, [Moehlig] 601—ab
Inflammation: See Peritonitis
irrigation (artificial kidney) for aspirin poisoning, [Doolan & others] *105
irrigation, artificial kidney, new type [Lowsley] 285—ab
lavage, intermittent, [Grollman] 674—ab
Tuberculosis: See Peritonitis, tuberculous
PERITONITIS
meconium, [Packard] 1158—ab
tuberculous, with pseudoappendical symptoms, [Mazzi] 685—ab
PERNICIOUS ANEMIA: See Anemia, Pernicious
PERSONALITY: See also Behavior
psychopathic, in the Armed Forces, [Campbell] *88
seminars on Rorschach test, Illinois, 204
structure in relation to antabuse therapy of alcoholism, [Dale & Ebaugh] *314
PERSPIRATION: See Sweat
PERTUSSIS: See Whooping Cough
PERUVIAN BALSAM
stimulation of granulation and epithelialization, 1089
PES Planus: See Foot, flatfoot
PETHIDINE: See Meperidine
PETIT MAL: See Epilepsy
PETROLATUM
liquid, to maintain collapse in tuberculosis; predispose to cancer? 1366
PEYRONIE'S DISEASE, 75; 1620
PHAGE: See Bacteriophage
PHARMACEUTICALS
houses, A.M.A. resolutions on sales promotion methods of, 854
PHARMACY
A.M.A. Council on: See American Medical Association
PHARYNGITIS
cortisone and acute streptococcic infections, [Hahn] 1074—ab
PHARYNX: See also Nasopharynx
cancer of hypopharynx, roentgenotherapy, [Antoniazzi] 1083—ab
perforation in endoscopy, [Knox] 875—ab
PHENACEMIDE (phenurone)
name recognized by Council, 927
PHENINDAMINE TARTRATE (thephorin)
bladder dysfunction from, [Uhle & Knoch] *1319
PHENOBARBITAL
sodium with benzyl alcohol 2%, N.N.R., (Gold Leaf) 1134
PHENURONE: See Phenacemide
PHENYLTHIOCARBAMIDE
test in doubtful paternity, [Cardullo] 1350—ab
PHEOCHROMOCYTOMA
diagnosis, review, [Rilshede] 1541—ab
dibenamine and norepinephrine in, [Cahill] 1446—ab
piperoxan and regitine tests in, [Emlet & others] *1383
piperoxan hydrochloride (benzodioxan) test, false positive reaction, [Place] *1227
piperoxan test in, [Faber] 1541—ab
untoward reactions to tests for, [Bierman] 1348—ab
PHILATELY: See Postage Stamps
PHILIPPINE ISLANDS: See also Filipinos
Medical Association, 44th annual convention of, 1150
PHLEBITIS: See also Thrombophlebitis
venous pressure determinations in postphlebitic syndrome, [De Camp] 216—ab
PHOSPHATASE
in gastric acid in diagnosis of cancer, [Rønnike] 1358—ab
PHOSPHORUS
acid débridement of burns with phosphoric acid gel, [Schweitzer] 1536—ab
acute yellow, poisoning, 478—E
amorphous red phosphorus cause anemia? 77
radioactive, in medical research, diagnosis, and therapy, (Council article) [Kelsey] *1132
radioactive (titrated, regularly spaced) for leukemias, [Osgood] 674—ab
radioactive, treatment of primary polycythemia, [Stroebel & others] *1301
PHOTOELECTRIC
cell, electrochemography of heart, Italy, 1061
PHOTOFLASH
effect on vision, 1456
PHOTOGRAPHY: See Moving Pictures
PHRENIC Crush: See Nerves, phrenic
PHYSICAL ACTIVITY: See Activity
PHYSICAL DEFECTS: See Handicapped; Physical Fitness
PHYSICAL EDUCATION: See Athletics; Exercise, therapeutic; Health education
PHYSICAL EFFICIENCY: See Physical Fitness
PHYSICAL EXAMINATION: See also Physical Fitness
certification and examination of prostitutes, A.M.A. position on, 564—E
of students, Belgium, 1060
PHYSICAL EXERCISE: See Exercise
PHYSICAL FITNESS
measurement of, as problem in physical medicine, [Jung] 1444—ab
PHYSICAL MEDICINE: See also Physical Therapy
American Congress of, 1431; (correction) 1603
A.M.A. Council on: See American Medical Association
Baruch Committee achieves its goals, 653—E
International Congress of, 44
measurement of physical fitness as problem in, [Jung] 1444—ab
PHYSICAL REHABILITATION: See Rehabilitation
PHYSICAL THERAPY: See also Diathermy; Physical Medicine; Radium; Roentgen Therapy; Ultraviolet Rays
after spinal cord injuries, [Pollock & others] *1559
A.M.A. Council on: See American Medical Association Council on Physical Medicine and Rehabilitation

PHYSICAL THERAPY—Continued
of paraplegics, A.M.A. symposium on, [French] *223; [Bors] *225; [Comarr] *229; [Dinken] *232; (discussion) 234
of poliomyelitis, value of muscle chart, [Lowman] *1097
Resistive Exercises in Physical Therapy for Thoracoplasty, (film review) 750
schools of, approved by A.M.A., list of, *196; 201—E
PHYSICALLY HANDICAPPED: See Handicapped
PHYSICIANS: See also Medical Jurisprudence; Medical Service; Medicine, profession of; Surgeons
Alien: See Physicians, foreign
A.M.A. resolution on qualifications to permit them to apply radium in hospitals, 935
American Medical Education Foundation, (President Cline urges each doctor to give at least $100) 1238; **(list of contributors)** 1327—E; 1329
American, Serving Overseas: See Korean War
avocations, Akron Doctors' Orchestra, Ohio, 43
avocations, American Physicians Art Association awards, 1142
Awards to: See Prizes
Bills: See Fees
citizenship, a physician's obligation, [Irons] *1023
Commissions (Military): See Armed Forces; Medical Preparedness
continuation courses for, July 1, 1951 to Jan. 15, 1952, 563—E; *581
Courses for: See Education, Medical, graduate
Deaths: See list of Deaths at end of letter D
Directory of: See American Medical Directory
Doctor's Day, Arkansas, 383
Education of: See Education, Medical
Ethics: See Ethics, Medical
expression should not betray his apprehension of patient's fate, 614—ab
family of, Gilfillan family, Iowa, 567
Fees: See Fees
Fellowships for: See Fellowships
Fellowships in A.M.A.: See American Medical Association
foreign graduate, should hospital appoint him as intern? 1138
foreign graduates, Federation of State Medical Boards resolution on, *369
Foreign-Trained, Licensure of: See Licensure
foreign, training German doctors at U.S.P.H.S., 1606
"Gold Medal Doctors," electrical transcriptions from A.M.A., 1426
Graduate Work: See Education, Medical
Heroic Action: See Korean War, Heroes
Hospital: See Hospitals
in Service: See Armed Forces; Army, U.S.; Korean War; Navy, U.S.
income, survey of, 1237—E; [Dickinson & Bradley] *1249
Income Tax: See Tax
Industrial: See Industrial Health
Lectures honoring: See Lectures
Licensure of: See Licensure
Medals for: See Prizes
Medical Responsibility: See Medical Jurisprudence; Medicolegal Abstracts at end of letter M
medical triangle, 814—ab
Memorial: See also Fellowships; Lectures; Physicians, monuments; Prizes
memorial, Hektoen memorial fund, 1331
memorial, Journal of Mount Sinai Hospital dedicated to Dr. Albert A. Berg, 43
memorial, Michigan Memorial Research Program at U. of Michigan, 659
memorial, Pritchard pavilion, New York, 1332
memorial, Thorne memorial collection, Connecticut, 204
memorial to Doctor Bohrer, New York, 659
memorial to Dr. Wittenborg, Tennessee, 266
memorial, Wilkins Memorial Library, Iowa, 483
Military Service: See Korean War; Medical Preparedness
Mobilization: See Medical Preparedness
monument to a physician: Dr. A. P. Reverend, physician to Bolivar, Colombia, 56
Placement Service, 846; 943
Portraits: See Portraits (cross reference)
positions open in public health, examinations, Illinois, 41
positions open with Veterans Administration, 1147
Practicing: See also Medicine, practice; Physicians, supply
practicing, and A.M.A. Scientific Exhibits, 1115—ab
practicing, family doctor is not a surgeon, [Lehman] 279—C; [Boyd] 1151—C; [Gorrell] 1340—C
practicing, skin grafting for, [Barker] *1219
Prescriptions: See Prescriptions
Prizes for: See Prizes
referring your patient to a psychiatrist, [Flumerfelt] *1589
Registration: See Harrison Narcotic Act; Licensure
PHYSICIANS—Continued
Resident: See Residents and Residencies
responsibility, 1220—ab; 1382—ab
responsibility to the profession, public relations, 1225—ab
retirement benefits for, (A.M.A. resolution on) 849; 1598—E
Service by: See Medical Service; Medical Service Plans
significance of personal problems: doctor-patient relationship, 991—ab
Specialization by: See Specialties
Statements: See Fees
supply, A.M.A. policy on production, 818—E; (Council report) 865
supply, A.M.A. resolution requesting that A.M.A. plans on future production be publicized, 261
supply, de Kruif's story in *Reader's Digest*, "What About This 'Doctor Shortage'?", 379—E; (President's page) 383
supply, Defense Department asks Selective Service System for more doctors, 274
supply, foreign-trained graduates representing additions to, *370; 377—E
supply, licentiates representing additions to, *351; *356; *357; 377—E
supply, number in Philippine Islands, 1150
Team of: See Medical Mission
Training: See Education, Medical
tribute to doctors from the press, National Editors Association, 380—E; 841
veteran, Bull (P.) dies at 81, Norway, 1247
veteran, Davidson (E. Y.), 90; St. Clair (F.), (90), D. C., 264
veteran, Goldman (Max) 50-year practitioner, 484
veteran, Henry (M. J.), hospital honors, Ky., 1517
veteran, Jones (Arthur W.), honored, Wis., 1332
veteran, Myers, (H. D.), memorial instead of celebration, Nebraska, 42
veteran, Schreiter (J. B.), honored by Carroll County, Ill., 1601
veteran, Smith (Clarence), 95th birthday, Washington, 206
Wages for: See Wages
War Service: See Korean War
women, Birch (C. L.) appointed dean of Lady Hardinge Medical College for Women, India, 1516
women, Martin (Mary T.) named mother of year, N.C., 266
women, Warner (Estella F.) assigned to Near East, 52
women specialists, needed by U.S. Army, 1337
women, 39 new women doctors, Pa., 739
PHYSIOTHERAPY: See Physical Therapy
PHYSIQUE: See Constitution
PHYTOBEZOAR
fermented mass of gray-green fiber and fruit rind, Turkey, 1150
PICTURES: See Art; Moving Pictures; Portraits (cross reference); Television
PIGMENTATION: See also Albinism; Vitiligo following lacerations, 1177
PIMPLES: See Acne
PINEL Foundation: See Foundations
PINK DISEASE: See Erythredema
PINWORM Infection: See Oxyuriasis
PIPEROXAN HYDROCHLORIDE (benodaine; benzodioxan; 933 F)
false positive reaction, [Place] *1227
routine tests in hypertension, [Emlet & others] *1383
test in pheochromocytoma, [Faber] 1541—ab
toxicity, untoward reactions to tests for pheochromocytoma, [Bierman] 1348—ab
PITRESSIN: See Vasopressin Injection
PITTSBURGH, University of: See University
PITUITARY
abnormal lactation, [Foss] 970—ab
Adrenocorticotropic Hormone: See ACTH
anterior, possible correlation with cancer, 1176
cachexia, Simmonds' disease, 1545
carbohydrate metabolism regulation and, [Horst-Meyer] 1266—ab
hormones, synergistic action of; relation to eclampsia, [Govan] 68—ab
implantation vs. ACTH for rheumatoid arthritis, Sweden, 55
necrosis, postpartum, 653—E
panhypopituitarism with arthritis, ACTH and cortisone in, [Schrock] 755—ab
posterior, hazardous to give patient in presence of transverse presentation, 1088
Posterior, Pressor Principle of: See Vasopressin Injection
roentgen, irradiation in malignant exophthalmos, [Beierwaltes] 1533—ab
role of somatotropic hormone, [Selye] 290—ab
toxic diffuse goiter of diencephalohypophysial origin, [de Gennes] 217—ab
tumors, giant-cell granuloma, 1355—ab
PLACEMENT: See Physicians
PLACENTA: See also Amniotic Fluid; Fetus
human, used in treatment of ulcers and fistulas, Colombia, 56
premature separation: fetal suicide, [Chalmers] 969—ab
PLAGUE
pneumonic (primary), streptomycin cure in, [Estrade] 1082—ab
specimens, report, Wash., 1518
treatment, streptomycin and sulfadiazine, [Ghosh] 70—ab
PLANES: See Aviation
PLANNED Parenthood: See Contraception
PLANTS: See also Chlorophyll; Dandelions; Rhus
diseases, microbial metabolites and plant welfare, 929—E
role of drugs in plant economy, 650—ab
PLASMA: See also under various subheads of Blood
L. E. test in lupus erythematosus, [Haserick] *16; 819—E
postpartum, treatment of rheumatoid arthritis, 77; [Granirer] *995
PLASTIC SURGERY: See Surgery
PLASTICS: See also Resins
ethylene dichloride plastic cement: fatal poisoning, advocate warning on label, [Lochhead & Close] *1323
PLEURA
effusions (localized interlobar) in heart failure, [Feldman] *1408
effusions, role of adrenal cortex in, [Moehlig] 601—ab
hemorrhage (massive) in pleural cavities in fatal acute hepatitis, [Eisen & Markovich] *1414
intrapleural injection of blood, reabsorption by hyaluronidase, [Amistani] 685—ab
PLEURISY
insufflation of air under skin in, [Gerrits] 1081—ab
Purulent: See Empyema
PLUMBISM: See Lead poisoning
PNEOPHORE, M.S.A. Demand, 1135
PNEUMOCONIOSIS: See Pneumonoconiosis
PNEUMONIA
cold agglutinins, [Finland] 60—ab
complications, empyema in infants and children, [Frazier & Davis] *247
lipid, [Volk] 752—ab
lipid, oil aspiration pneumonia in infancy, [Crome] 1614—ab
primary pneumococcic, at Cincinnati General Hospital, [Thompson] 62—ab
treatment, aureomycin or penicillin, [Leland] 1536—ab
treatment, oral penicillin in lobar type, [Harvey] 753—ab
treatment, streptokinase-streptodornase in postpneumonic emphyema, [Tillet] 964—ab
treatment of 3 types, [Nielsen] 1616—ab
PNEUMONIC Plague: See Plague
PNEUMONOCONIOSIS
asbestosis (pulmonary), Belgium, 670
in coal miners, [Mann] 1172—ab
silicosis, action of quartz plus coal or graphite on lungs of rats, [Ray] 1538—ab
silicosis, effect of ACTH in, [Kennedy] 498—ab
silicosis, new clinical signs: paracardiac pain; knee sign, [Maulini] 1445—ab
soot lung and effects of coal dust, [Gärtner] 874—ab
PNEUMOPERITONEUM
in diagnosis of diaphragmatic hernia, [Clay] 63—ab
in study of pelvic structures, [Maxfield] *920
treatment of pulmonary tuberculosis, [Thomassen] 972—ab
treatment plus streptomycin in tuberculosis of lung, [Brock] 1259—ab
PNEUMOTHORAX: See also Hemopneumothorax
radiology of postpneumothorax, [Racine] 874—ab
spontaneous idiopathic, intercostal catheter and closed thoracotomy drainage for, [Hughes & others] *244
PNEUMOTHORAX, ARTIFICIAL: See also Tuberculosis of Lung
extrapleural, in pulmonary tuberculosis, [Cutler] 964—ab
evaluation based on complications, [Porrata-Armstrong] 1072—ab
PODOPHYLLIN
can it be safely used in treatment of recurrent urethral papillomas? 1177
POISON IVY: See Rhus
POISON OAK: See Rhus
POISONING: See also under names of specific substances as Lead; Phosphorus
Food: See Food poisoning
identification of poisonous materials, 1405—ab
Industrial: See Industrial Diseases
more factual death certificates on deaths from various poisons, Council report, 927
POLICE
request help in finding murderer: Edgar Alvin (Ted) Werner, [Morton] 57—C
POLIOMYELITIS
acute anterior in 1950, Sweden, 278
acute, cardiovascular manifestations in, [Weinstein] 679—ab
acute, effect of transportation on severity of, [Brahdy & Katz] *772
bulbar, center at U. of Buffalo, 1517

POLIOMYELITIS—Continued
bulbar, diagnosis; treatment, [Kelleher] 1357—ab
bulbar, gastrointestinal lesions in, [Cook] 1076—ab
bulbar, potassium deficiency in; relief with potassium chloride, [Lans & others] *1017
convalescent care accelerated; value of muscle chart record in physical therapy and surgery, [Lowman] *1097
Diagnosis of Poliomyelitis, (film review) 1440
epidemic in Israel, 1950, 1438
home care plans for, 1241
hospitals to care for patients, Illinois, 737
immunization during season of, 1087
immunization during season of, New York Academy statement, 856; (clarifies statement) 1240
immunization of diphtheria preceding, Belfast, [McLeod] 1165—ab
Immunizing Injections preceding, [Bousfield] 1450—ab
in Mexico City, 1519; 1525
incidence, in U. S., 1142; 1241; 1333; 1432; 1519; 1603
injury preceding, [Harrington] 1357—ab
International Poliomyelitis Conference, (A.M.A. endorses) 1328; (program) 1432
milk-borne, [Lipari] 65—ab
National Foundation for Infantile Paralysis, 661; (predoctoral fellowships) 662; (note of appreciation) [O'Connor] 672—C; (bulbar polio center at U. of Buffalo under grant from) 1517
paralysis in two stages in, [Sédallian] 1166—ab
prognosis, effect of physical activity, [Albrecht & Locke] *769
respiratory paralysis in, [Plum & Wolff] *442
second attacks, autopsy findings, [Hoyne & Lipton] *707; [Bissell] 1526—C
tonsillectomy in relation to, [Miller] 59—ab
treatment, ACTH, [Milzer] 284—ab
treatment, question of intravenous use of fluids; tube feeding advisable, 297
treatment, training courses for physicians in, 487
POLITICS
citizenship, a physician's obligation, [Irons] *1023
in universities and hospitals, Argentina, 1339
POLLINOSIS: See Hay Fever
POLYAMINE-METHYLENE RESIN (exorbin) N.N.R., (Ayerst, McKenna & Harrison) 1134
POLYARTERITIS: See Periarteritis
POLYARTHRITIS: See Arthritis, Rheumatoid
POLYCYTHEMIA
primary, radiophosphorus therapy evaluated, [Stroebel & others] *1301
spent, vs. leukemia, splenic aspiration in, [Morrison & others] *1575
POLYETHYLENE
to stimulate fibrous tissue, 509
wrapping aneurysms with strips of, [Cowley] 405—ab
POLYMYXIN
B and polymyxin E, [Kagan] 678—ab
POLYPS
adenomatous, of colon and rectum, [Castro] 288—ab; [Bacon] 1537—ab
POLYTHENE
substances used to stimulate fibrous tissue, 509
POMONA FEVER
in Australia, 957
PONTOCAINE: See Tetracaine
POPULATION: See also Citizens; Vital Statistics
survey of physician's income according to, (Bureau's report), [Dickinson & Bradley] 1237—E; *1249
PORK: See also Trichinosis
Gerber-Armour strained, 1029
PORPHYRIA
chronic, adult form with skin manifestations, [Brunsting & others] *1207
PORTAL VEIN
portacaval anastomosis for portal hypertension, [Auvert] 684—ab
roentgenography during operation for Banti's syndrome, [Santy] 504—ab
PORTRAITS: See American Medical Association Board of Trustees; American Medical Association, Sections; under names of individuals as Bauer; Bloss; Cline; Hektoen; Whipple
of Men Who Died in Service: See Korean War, Heroes, for specific names
POSITION in Space: See Posture
POSITIONS Open: See Physicians, positions open
POSITIVE Pressure: See Pressure
POSTAGE STAMPS
French honor military medicine scientists, 1240
POSTGRADUATE: See Education, Medical, graduate
POSTNATAL: See Infants, Newborn
POSTOPERATIVE: See Surgery
POSTPARTUM: See Puerperium
POSTURE
physiological position for delivery; squatting position, [Howard] 680—ab
POTASSIUM
arsenite: Fowler's solution; its total amount of arsenic; cause cancer? 418
deficiency in bulbar poliomyelitis; relief with potassium chloride, [Lans & others] *1017
hydrochloride vs. basic fuchsin staining technic in fungus infections, [Kligman & Mescon] *1564
in Blood: See Blood
Iodide and streptomycin combined, in tuberculosis of lung, [Woody] 1258—ab
metabolism and digitalis toxicity in heart failure, 1030—E; [Lown] 1447—ab
Penicillin: See Penicillin G
salts treatment of periodic paralysis, [Hammes] *1401
POTATOES
Heinz Strained Sweet Potatoes, 477
POULTRY: See Chickens
POWDER: See Dusting Powder
POWER, Atomic: See Atomic Energy
PRACTICAL NURSING: See Nurses and Nursing
PRACTICE of Medicine: See Medicine, practice
PRACTITIONER: See Physicians
Drugless: See Cults
PRECEPTORSHIPS
A.M.A. resolution on, 850
PREECLAMPSIA: See Eclampsia
PREFRONTAL Leukotomy; Lobotomy: See Brain surgery
PREGNANCY: See also Fertility; Fetus; Labor; Maternity; Obstetrics; Placenta; Puerperal Infection; Puerperium
air transport of pregnant women, 253—ab
complications; acute cholecystitis, [Buxton & others] *301
complications; anemia, intravenous iron for, [Scott] 684—ab
complications; anemia, response to penicillin G, [Foy] 1539—ab
complications; ankylosing spondylitis, [Hart] 1352—ab
complications; diabetes, 909—ab
complications; essential hypertension, [Nordenstrahl] 1268—ab
complications; familial erythroblastosis, abortion and castration indicated? [Dahr] 1355—ab
complications; heart disease, adequate care evaluated, [Fitzgerald & others] *910
complications; hyperthyroidism, 222
complications; illness in first trimester, [Hartman] 1075—ab
complications; malaria, quinine treatment advisable? (reply) [King] 510
complications; measles; congenital malformations in child, Sweden, 1339
complications; otosclerosis, abortion indicated? 1619
complications; peptic ulcer, why is it rare during pregnancy? [Schmid] 504—ab
complications; ptyalism, 1545
complications; rabies vaccine given during 7th month not cause of deformity in child, 1458
complications; renal failure after hemorrhage, [Tennent] 1450—ab
complications; rheumatoid arthritis aggravated, 1364
complications; sickle cell crisis, [Eddington] 1617—ab
complications; toxic neuritis, 299
complications; tuberculosis, infants born of tuberculous mothers, [Ratner] 965—ab
complications; typhoid, chloramphenicol for, [Stevenson & others] *1190
cortisone and gestation, Paris, 493
cortisone, hay fever and, 1089
diagnosis, biologic tests, Denmark, 277
diagnosis, clinical experiences with Mainini and bufo pregnancy tests, [Felding] 875—ab
diagnosis, comparative Galli-Mainini and Friedman reactions, [Felding] 875—ab
diagnosis test with male toad, [Tien] 503—ab
diagnosis test with neostigmine (prostigmine), 415
duration, relation to prematurity, [Toback] *897
ectopic, culdocentesis, [Beacham] 64—ab
ectopic, incidence, [Anderson] 675—ab
ectopic, posterior colpotomy in, [Draa] 675—ab
ectopic, rupture of, [Cezar de Andrade] 288—ab
edema in, mercurial diuretics advisable to control? 415
endocrine patterns (4 types) in term pregnancies after abortion, [Jones & Delfs] *1212
hormonal balance of pregnancy and menopause compared, 1544
Interruption of: See Abortion
iron metabolism in, [Chapman] 1156—ab
Multiple: See Superfetation; Triplets; Twins
postpartum plasma for rheumatoid arthritis, [Granirer] *995
Protection From: See Contraception
rabies transmitted by pregnant dog possible? 1175
result from deposition of sperm on vulva without intromission? (reply) [Kelly] 692
PREGNANCY—Continued
Toxemia of: See also Eclampsia
toxemia of, 1124—ab
toxemia of, blood pressure in, [Bukherjee] 70—ab
toxemia of, cause of maternal deaths in New York City, [Faison] *1393
toxemia of, cause of maternal deaths in rural South, [Ferguson] *1388
toxemia of, hypertension in, gonadotropin concentration in serum, [Govan] 1540—ab
toxemia of: nausea and vomiting, treatment, 417
toxemia of, routine examination of ocular fundi, [Gordon] *810
Urine, Hormone Excreted in: See Gonadotropins, chorionic
urine, paper chromatography of, [Zilliacus] 1082—ab
PREGNANEDIOL
deficiency, in term pregnancies following abortion, [Jones & Delfs] *1212
PREGNENOLONE
toxicity: cutaneous side effects, [Brunner] 1346—ab
treatment of rheumatoid arthritis, [Brugsch] 1348—ab; [Norcross] 1349—ab
PREMATURE INFANTS: See Infants, premature
PREMEDICAL Work: See Education, Medical
PRENATAL: See Fetus; Pregnancy
Injury: See Medicolegal Abstract at end of letter M
PREPAREDNESS, Medical: See Medical Preparedness
PREPAYMENT Plans: See Hospitals, expense insurance; Medical Service Plans
PRESCRIPTIONS
physicians overprescribing barbiturates, [Barbash] *1584
refilled, federal legislation proposed, 1427
PRESENTATION: See Labor, presentation
PRESS: See Newspapers
PRESSURE
glass float device to prevent air embolism in transfusions under, [Wilkinson] *1318
positive, for nebulization with vaccum cleaner, [Sheldon & others] *648
positive pressure air lock in resuscitation in asphyxia neonatorum, [Bloxsom] *1120
PREVENTIVE MEDICINE: See also Immunization; Vaccination
advances in, 1028—ab
integral and necessary part of everyday practice, 729—ab
PRICE-JONES curve in hemolytic disease of newborn, [deVries] 503—ab
PRICELESS Frozen Concentrated Orange Juice, 108
PRISCOLINE: See Benzazoline
PRISONERS: See Criminals
PRIZE FIGHTING: See Boxing
PRIZES: See also Fellowships; Lectures; Scholarships
Allen (Raymond B.) Instructorship Awards, 946
Alvarenga, 1139
American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Foundation Prize, 569
American Cancer Society, 205; 738; 740
American Dermatological Association, 1055
American Heart Association gold hearts awarded, 1518
A.M.A. Committee on Awards, 1036
A.M.A. Distinguished Service Award, (nominations open) 38—E; (to Dr. Allen O. Whipple) 735—E; (balloting) 831
American Medical Golfing Association awards, 1055
American Otological Society, 1141
American Physicians Art Association awards, 1142
American Society of Plastic and Reconstructive Surgery, 661
Auerbach Award, 204
Awards for Distinguished War Service: See Korean War, Heroes; World War II, Heroes
Blackwell Medal, 738
Borden Award in nutrition, 266
Borden Undergraduate Research Award, 1239
Capps, 567
Chapin Medal, 486
Commendation for War Service: See Korean War, Heroes; World War II, Heroes
Commercial Solvents Award, 658
Criss, 856
Crookshank (Comfort) Award for cancer research, 1139
De Roaldes gold medal, 1053
Fisher Memorial Award, for discovering Coxsackie virus, 1240
Friedenwald Medal, 1055
Gibbs Medal, 41
Goldberger Award, 657
Gold-Headed Cane, Calif., 1331
Hillebrand Prize, 204
Hofheimer Award, 737
Ill (Edward J.), 1140
Kappa Delta, 661
Keyes memorial medal, Alaska, 1602
Knudsen Award, 658

PRIZES—Continued
Laennec Society, Pa., 1054
Longacre Award, 667
Marchman Award, Texas, 206
Miller (Leo F.) to students, Illinois, 855
Mount Sinai Hospital awards for interns, Illinois, 41
National Safety Council's Public Interest Award to A.M.A.'s Today's Health, 486
National Traffic Safety Contest winners, 207
Neuberg Medal Award, 205
New Jersey Orthopedic Society Award, 1140
Paul-Lewis Laboratories Award, 267
Remington Medal, 485
Ricketts, 567
Schering Award, 949
Shattuck Award, 383
Smith (Theobold) Award, 1239
Strittmatter Award, 385
Trudeau Medal, New York, 659
Van Meter, 1147
PROBENECID (Benemid)
name recognized by Council, 927
PROCAINE AMIDE (pronestyl)
action in cardiac arrhythmias, [Miller & others] *1104
treatment of ventricular tachycardia, [Irvin & Cutts] *1282
PROCAINE HYDROCHLORIDE
block of cervical sympathetic in cerebral concussion, [Blumensaat] 1359—ab
block of stellate ganglion in shoulder-hand syndrome after myocardial infarction, [Swan & McGowan] *774
dermatitis from local anesthetics, [Lane & Luikart] *717
intravenous as diuretic in toxemia, [Serwer] 65—ab
intravenous, cardiotoxic action, [Carter] 1532—ab
Penicillin: See Penicillin treatment
to overcome pain of injections of liver extract or vitamins, 77
treatment of osteoarthritis, [Berger] 679—ab
PROCTITIS: See Rectum inflammation
PROCTOLOGY: See also Rectum
International Academy of, 3rd annual convention, 206
PROFESSION: See also Medicine, profession of
basic values in professional education, [Severinghaus] *79
income of lawyers and dentists compared with physicians, 1237—E; (Bureau article) [Dickinson & Bradley] *1251
retirement benefits for professional persons, A. M. A. resolution on, 849; 1598—E
PROGESTERONE
Excretion Product of: See Pregnanediol
treatment of acne vulgaris, [Andrews & others] *1107
treatment of neurodermatitis, 300
treatment of sex disturbances, [Kaufmann] 1355—ab
PROLAPSE: See Spine, intervertebral disk; Urethra
PROMIN: See Glucosulfone
PRONESTYL: See Procaine Amide
PROPYLPARABEN
treatment of Rhus dermatitis, [Hoagland & others] *612
PROPYLTHIOURACIL
toxicity: hypoprothrombinemia, [Craddock] 1262—ab
PROSTATE
cancer, do androgens initiate? 300
cancer, estradiol pellet implantation in, [Okie] 680—ab
Inflammation: See Prostatitis
obstruction: use of diethylstilbestrol on noncancerous type, 766
PROSTATECTOMY
mortality rate in transurethral prostatic resection, [Creevy] 1611—ab
retropubic: Millin technic modified, [Carruthers] 1533—ab
PROSTATITIS
chronic, and oligospermia, 768
PROSTHESIS: See Limbs, Artificial
PROSTIGMINE: See Neostigmine
PROSTITUTES
examination and certification of, A.M.A. position on, 564—E
PROSYMPAL
hormonal cerebral vasopressor substance, 1326—E
PROTEIN: See also Amino Acids; Meat; Pork
diet (high) low-carbohydrate diet for obesity, [Billig] *1180
diet (high) plus iron therapy for anemia in blood donor, [Bateman] 402—ab
in Blood: See Blood
Sensitivity: See Allergy
PROTEUS
vulgaris, effect of combinations of antibiotics, [Armstrong] 1160—ab
PROTHROMBIN: See Blood prothrombin
PSEUDOAPPENDICITIS
symptoms in, tuberculous peritonitis, [Mazzi] 685—ab
PSEUDOHERMAPHRODITISM: See Hermaphroditism
PSEUDOMONAS
aeruginosa, effect of combinations of antibiotics, [Armstrong] 1160—ab
PSEUDO-ORCHITIS
in children, [Fernandez] 1170—ab
PSITTACOSIS
treatment, aureomycin, [Hamke] 968—ab
PSORIASIS
treatment, nitrogen mustard [Gómez Orbaneja] 1269—ab
treatment, undecylenic acid by mouth, [Rattner & Rodin] *1113
PSYCHE: See Personality
PSYCHIATRISTS
referring your patient to a psychiatrist [Flumerfelt] *1589
PSYCHIATRY: See also Hospitals, psychiatric; Mental Disorders; Mental Hygiene; Neuropsychiatry; Psycho—
child, Angry Boy, (film review) 1440
child, fellowships in, 741
clinical, and mental test methods, Paris, 955
course in psychiatric nursing at Saint Elizabeths Hospital, 211
crime of menticide, [Meerloo] 498—ab
Hofheimer Award, Calif., 737
industrial, seminars in, [Ross] 754—ab
International Congress on (first), Paris, 955
mobilization and, [Campbell] *87
Psychiatric Bulletin, W.Va., 1054
residency training, Illinois, 567
speaker's bureau, Pa., 1518
specialist looks at everyday medical care in industry, [Due] *1183
techniques in medical practice, [Barhash] *1584
PSYCHOANALYSIS: See also Personality
evolution and present trend of, Paris, 955
PSYCHOLOGISTS
clinical, A.M.A. Section report on certification, 1045
clinical, needed, 51
government pays for training of, 274
PSYCHOLOGY: See also Psychologists
in management of cancer cases, [Kline & Sobin] *1547
PSYCHONEUROSIS: See also Neurosis
in the Armed Forces, [Campbell] *89
treatment, carbon dioxide, Meduna's method, 1273
PSYCHOPATHIC
Hospitals: See Hospitals, psychiatric
personality in the Armed Forces, [Campbell] *88
PSYCHOSES: See also Mental Disorders
manic depressive, 1456
of senility, [Freyham] 1611—ab
paranoia, prognosis in, [Seitz] 1441—ab
PSYCHOSURGERY: See Brain surgery
PSYCHOTHERAPY
of incontinence of feces (encopresis), [Calzada] 1170—ab
of ulcerative colitis, [Groen] 1259—ab
"trap" headache, [Bostock] 604—ab
treatment of frigidity, 1273
PTYALISM: See Saliva
PUBERTY: See Adolescence
PUBIC BONE
tuberculosis, [Amadei] 1264—ab
PUBLIC HEALTH: See Health, public
PUBLIC RELATIONS
A.M.A. Committee on Public Relations Policy, 262
A.M.A. resolution on request for A.M.A. section on, 853; (not approved) 854
Illinois "county medical society level" conference (first), 41
PUERPERAL INFECTION
cause of maternal death in rural South, [Ferguson] *1388
cause of maternal deaths, New York City, [Faison] *1394
PUERPERIUM
deaths in New York City, [Faison] *1396; *1397
postpartum necrosis of pituitary, 653—E
postpartum plasma treatment of rheumatoid arthritis, 77; [Granirer] *995
PULMONARY: See Lungs
Embolism: See Embolism
Tuberculosis: See Tuberculosis of Lung
PULMONARY VALVE
stenosis, Brock procedure for, [Downing] 406—ab
stenosis (congenital), [Leininger] 868—ab
stenosis, surgical relief of, in tetralogy of Fallot, 928—E
PUNCH BIOPSY: See Liver
PUNCTURE: See Spinal Puncture
PUPILS (students): See Children, school; Students
PURPURA
fulminans, Waterhouse-Friderichsen syndrome, [Nelson & Goldstein] *1193; [Newman] *1292
nonthrombocytopenic, caused by mentholated cigarettes, [Highstein & Zeligman] *816
PUS
pustular bacterid, (reply) [Gaul] 880
PUTTY
Silicone Bouncing, 817
Thera-Plast, 817
PYELOGRAPHY
deformity produced by hepatic abscess, [Coppridge & others] *107
effects of X-radiation on roentgenologist, 1544
methods in genitourinary tuberculosis, [Dettmar] 71—ab
PYLORUS
spasm in infants, papaverine for, [Mayerhofer] 502—ab
stenosis in 4 first cousins, [Carter] 967—ab
PYREXIA: See Fever
PYRIBENZAMINE: See Tripelennamine Hydrochloride
PYRIDIUM
toxicity: methemoglobinemia, [Crawford & others] *24
PYRIDOXINE HYDROCHLORIDE
N.N.R., (U.S. Vitamin Corporation) 34
PYRITE mines, saturnism in, Belgium, 394
PYROMEN
fever therapy for essential hypertension, 1365

Q

Q FEVER
in Italy, 747
Pomona fever and, Australia, 957
QUAKERS
Friends Medical Society formed, 385
QUARTZ
Lamp: See Ultraviolet Rays
plus coal or graphite, action on lungs of rats, [Ray] 1538—ab
QUINIDINE
effect on fibrillating auricle, [Prinzmetal & others] *1275
intravenous, in arrhythmias, [Acierno] 1442—ab
treatment, failure in ventricular tachycardia; pronestyl used effectively, [Irvin & Cutts] *1282
QUININE
treatment of malaria during pregnancy and lactation, (reply) [King] 510
QUINOLINE: See Chloroquine

R

RABIES
immunity to, duration of, 767
outbreak, Washington, 267
prevention, Semple vaccine, Turkey, 278
quarantine, Illinois, 483
transmission by fleas, chickens, pregnant dog, cows, etc., 1175
RACES: See also Negroes
different, duodenal ulcer in, 689
RADIATION: See also Infra-Red Rays; Radioactive Isotopes; Radium; Rays; Roentgen Rays; Ultraviolet Rays
absorption from viewing television programs, any danger? 1456
Hello-Therm, Model F., 1513
injury, use of bone marrow in, [Talbot] 1535—ab
lesions of foot, resurfacing by plastic surgery, [Brown & Fryer] *628
myelitis, 1136—E
sickness, dramamine in, [De Feo] 1263—ab
RADIO: See also Television
A.M.A. Board of Trustees actions on, 1328
A. M. A. electrical transcriptions: Gold Medal Doctors, 1426
A.M.A. resolutions on National Broadcasting Co., 838; 839
Flying Doctors Medical Service, Australia, 669
Frequency Energy Apparatus: See Diathermy
scientific broadcasts on Voice of America, 1426
RADIOACTIVE
contamination, radiological aspects of civil defense, [Lyon] *465
Iodine: See Iodine, radioactive
Isotopes: See also Atomic Energy
isotopes export program, enlargement of, 1337
isotopes in medical research, diagnosis, and therapy, (Council article), [Kelsey] *1131
Phosphorus: See Phosphorus
RADIOLOGY: See also Radiation
American College of Radiology, (list of schools for x-ray technicians approved by), *192; 201—E; (contribution to American Medical Education Fund) 831
International Radiomedical Center, Italy, 1061
therapeutic, clinic for, New York, 568
RADIOPAQUE
element in surgical sponges, [Levene] *1320
RADIUM
A.M.A. resolution on standards of qualifications to permit physicians to apply radium in hospitals, 935
nasopharyngeal irradiation, vs. roentgen therapy for benign conditions, [Garland & others] *454
tolerance dose in radiologic work, [Hansen] 967—ab
treatment, intrauterine irradiation of corpus carcinoma, [Czech] 1540—ab
treatment, technic of irradiation of skin cancer, [Scholte] 1450—ab

RADIUS
fracture (Colles), traction device for, [Wichern & Bacon] *1233
fractures of elbow in children, [Blount & others] *702
RAMÓN Y CAJAL, Santiago, 30—ab
RAPE
sexual psychopath, [Karpman] *721
RASH: See Eruptions
RASPBERRIES
black, Monarch Brand Dietetic Pack, 477
RATS
poison, acute yellow phosphorous poisoning from, 478—E
RAYNAUD'S DISEASE
prognosis, [Blain] 966—ab
RAYS: See also Radiation
visible, effect of photoflash on vision, 1156
READ formula, modification to determine basal metabolic rate, 510
READER'S DIGEST: See Journals
READER Fellowship: See Fellowships
REBATES
A.M.A. Judicial Council report, 842
RECIPROCITY: See Licensure
RECKLINGHAUSEN'S Disease: See Neurofibromatosis
RECORD Librarians: See Medical Record Librarians
RECREATION: See Physicians, avocations
RECRUITS: See Medical Preparedness
RECTUM: See also Proctology
Administration by: See Enema
cancer; its surgical therapy, Italy, 56; 493
cancer, metastasis to penis from [Cattell & Mace] *1239
inflammation, proctitis after aureomycin, 767
intracardiac and rectal temperatures, [Eichna] 1346—ab
sensitivity of, and anal continence, [Goligher] 1080—ab
surgery, physiological basis for preserving fecal continence after resections, [Gaston] *1186
surgery, sphincter-saving resections, 1572—ab
tumors, adenomatous polyps, [Castro] 288—ab; [Bacon] 1537—ab
RED CELLS: See Erythrocytes
RED CROSS
Danish, hospital ship, 277
Swedish, hospital in Korea, 1521
RED CROSS, AMERICAN
blood program, list of 41 regional centers, 941
blood program, Maj. Gen. David Grant appointed director of, 52
REDUCING Treatment: See Obesity
REFLEX
Carotid Sinus: See Carotid Sinus
connection between rectum and anal sphincter, [Gaston] *1488
defecation, developed by stretching anus with patient's finger and rubber cot, [Pollock & others] *1557
Pupillary: See Adie Syndrome
REFRIGERATION
refrigerated homogenous bone transplants, [Wilson] 1159—ab
REFUGEES: See Physicians, foreign
REFUSE
garbage-fed hogs, trichinella infections in, San Francisco, [Beard] *331
REGITINE
tests (routine) in patients with hypertension, [Emlet & others] *1383
REGISTRATION: See Harrison Narcotic Act; Licensure; Medical Preparedness
REHABILITATION
A.M.A. Council on Physical Medicine and: See American Medical Association
A.M.A. resolution on medical supervision of curative workshops, 848
A.M.A. symposium on, for paraplegics, [French] *223; [Bors] *225; [Comarr] *229; [Dinken] *232; (discussion) 234
Association for Physical and Mental Rehabilitation, 487
cleft palate, 570
manual on multiple sclerosis distributed by National Multiple Sclerosis Society, 949
of aphasic patient, 880
of handicapped, 323—ab
of paraplegics after spinal cord injury, [Pollock] *1559
of paraplegics, neurosurgery in, [French] *223
of paraplegic patient, [Dinken] *232
urological aspects of in spinal cord injuries, [Bors] *225
Vocational Rehabilitation Institute, moves to new quarters, Missouri, 1140
REITER'S SYNDROME
treatment, ACTH intravenously, [Mandel & others] *546
RELAXATION
curare as adjunct to, in esophagoscopy, [McLaurin] 1444—ab
RELIGION
attitude on intersexuality, [Himnan] *428
medicine and, 709—ab
REMINGTON Medal: See Prizes
REMUNERATION: See Fees; Income; Wages
RENAL: See Kidneys
REPRODUCTION: See Coitus; Contraception; Fertility; Pregnancy; Sterility
REPTILES
desire information on bites from, [Wilson] 1526—C
RESEARCH: See also Animal Experimentation; Patents; Scientists; under specific headings as Cancer
career research investigator appointed, 949
Clinical Center for Medical Research for U.S.P.H.S., (picture) 668
Fellowships: See Fellowships
Foundation: See Foundations
Gordon Conferences, 386
Grants for: See also Foundations
grants for, awarded to U. of Illinois, 737; 946
grants for, by Sharp & Dohme, Inc., 1241
Prizes for: See Prizes
radioactive isotopes in (Council article), [Kelsey] *1131
scientific, in Belgian Congo, 394
RESERVE OFFICERS: See Army, U.S.; Armed Forces; Navy, U.S.
RESIDENTS AND RESIDENCIES: See also Fellowships; Interns and Internships
American Board of Surgery, credit for, 1138
A.M.A. resolutions on general practice residencies, 853
begin training in Army hospitals, 953
licensure requirements for, *356; *359
psychiatric residency training, Illinois, 567
special registrants completing June 1951, Selective Service System statement, 575
RESINS
cation exchange, determination of gastric acidity without intubation using, 260—E
ion exchange, treatment of congestive cardiac failure, [Kleiber] 402—ab
polyamine-methylene, N.N.R., (Ayerst, McKenna & Harrison) 1134
sodium absorbent, warning [Lipman] 395—C
vinylidene chloride, 768
RESORCINOL: See Hexylresorcinol
RESORTS: See Health resorts
RESP-AID Oxygen Mask, Model 300, 108
RESPIRATION: See also Inhalators
Artificial: See also Respirator; Resuscitation
artificial, rocking bed, cuirass and tank type, in poliomyelitis, [Plum & Wolff] *444
chest pain following inhalation of cold air, 508
depression, electrostimulation in, [Zimmerman] *1025
Disorders: See Asphyxia; Dyspnea
dramatic symptoms induced by sudden withdrawal of ACTH, [Keeton & others] *615
hyperventilation, alkalosis from, [Sattler & others] *1125
insufficiency, in acute poliomyelitis, [Plum & Wolff] *442
Vital Capacity: See Vital Capacity
RESPIRATOR: See also Respiration, artificial
Chestpirator Portable Respirator, Junior Hospital Model, 108
RESPIRATORY METABOLISM: See Metabolism, basal
RESPIRATORY SYSTEM: See also Bronchus; Lungs; Pleura; Trachea
Disease: See also Bronchiectasis; Pneumoconiosis
disease, cold agglutinins, [Finland] 60—ab
Infection: See also Colds; Influenza; Pneumonia; Tuberculosis of Lungs
infection (hemolytic streptococci), prevent rheumatic fever by prompt penicillin therapy, [Massell & others] *1469
infection, wholesale use of sulfonamides and antibiotics in epidemic of, 221
REST
cures, psychiatric techniques in medical practice, [Barhash] *1585
RESUSCITATION: See also Respiration, artificial; Respirators
cardiac, with massage and electrocardiography, [Rochu] 1448—ab
positive pressure air lock in asphyxia neonatorum, [Bloxsom] *1120
RETIREMENT: See also Pensions
benefits for professional persons, A.M.A. resolutions on, 849; 1598—E
RETROLENTAL Fibroplasia: See Lens, Crystalline
RETROPUBIC Prostatectomy: See Prostatectomy
REULING, JAMES R., Vice-Speaker of A.M.A. House of Delegates, 829
REVEREND, ALEJANDRO PRÓSPERO, physician to Simón Bolívar, monument, honoring, Colombia, 56
Rh FACTOR: See also Erythroblastosis, Fetal
brucella-agglutinin blocking factor in human serum, [Schuhardt] 735—ab
cerebral palsy and [Sobel] 1161—ab
conglutinating activity in fetal and infant serums, [Seelich] 1269—ab
determinations, methods for, [Poole] 969—ab
erythroblastotic baby, 1271
haptens and blocking antibodies, 977
Price-Jones curve in hemolytic disease of newborn, [deVries] 503—ab
routine typing in maternity service in New York hospitals, [Faison] *1395
RHEUMATIC FEVER
athletics and, 1088
Cardiac Complication: See Heart disease; Heart inflammation
industrial aspects, [Overholt] *1187
influenza and, 979
prevention by prompt penicillin therapy of hemolytic streptococcic respiratory infections, [Massell & others] *1469
prevention with penicillin, [Rammelkamp] 1351—ab
treatment, ACTH intravenously, [Mandel & others] *546
treatment, androgens and 17-ketosteroid deficiency, [Dunn] 677—ab
treatment, cinchoninic acid derivative, [Rennie] 683—ab
treatment, cortisone and ACTH, [Keith] 968—ab
treatment, rutin and ascorbic acid, [Schnur] 972—ab
RHEUMATISM: See also Arthritis
Acute Articular: See Rheumatic Fever
American Rheumatism Association, 386
Arthritis and Rheumatism Foundation, (fellowships) 568
Desert: See Coccidioidomycosis
nodules in tuberculosis, [Valdés-Dapena] *1566
palindromic, [Wassermann] 289—ab
treatment, total adrenal cortex extract plus ascorbic acid, [Bassi] 1617—ab
RHEUMATOID ARTHRITIS: See Arthritis, Rheumatoid
RHINITIS
Vasomotor: See Hay Fever
RHINOPHARYNX: See Nasopharynx
RHINORRHEA
spontaneous cerebrospinal, with remission after dye injection, [Kahn] *728
RHODE ISLAND Temporary Disability Insurance supported by state medical society, 847
RHUS
dermatitis, treatment, use of 6 drugs, [Hoagland & others] *612
poison ivy, [Clarkson] 1355—ab
toxin, fatal and near fatal acute glomerulonephritis after, [Shaffer & others] *1570
RIBS: See also Sternum
cervical, 1438
costal chondritis, [Deane] 1356—ab
tumors, cartilaginous, [O'Neal] 63—ab
RICE
diet in hypertension, [Loofbourow] 1348—ab
RICKETTS Prize: See Prizes
RICKETTSIA: See also Q Fever; Rocky Mountain Spotted Fever; Typhus
disease, aureomycin and chloramphenicol in, [Höring] 290—ab
orientalis: See Tsutsugamushi Disease
rickettsialpox in Boston, [Franklin] 1162—ab
RINGWORM: See Dermatophytosis
of Scalp: See Tinea capitis
RIVERS: See Water
ROAD Accidents: See Automobile accidents
ROCKEFELLER
Foundation: See Foundations
Institute, promotions at, New York, 1429
ROCKING Method of Respiration: See Respiration, artificial
ROCKY MOUNTAIN SPOTTED FEVER
incidence, U.S., 486
RODENTS: See Rats
ROENTGEN RAYS: See also Medicolegal Abstracts at end of letter M
apparatus attachable to Bell fracture table, [Runge & others] *1026
apparatus, how many x-ray and fluoroscopic machines are there in the United States? 1138
departments in hospitals, *121
diagnosis of gastritis, [Müller] 1539—ab
effects of secondary radiation on roentgenologist, 1544
Examination: See also Gallbladder, roentgen study; Heart ventricles; Pelvis; Pyelography; Thorax
examination (annual), any hazard from? 608
examination, reliability of radiograms, Sweden, 748
examination, roentgenograms, for teaching, gift of, Missouri, 1053
examination, roentgenograms in nerve blocking necessary, [Pender & Pugh] *798
fluoroscopes for shoefitting, hazards, [Van Allen] 1076—ab
Irradiation: See Roentgen Therapy
technicians, list of schools for, approved by A.M.A. and American College of Radiology, *192; 201—E
tolerance dose in radiologic work, [Hansen] 967—ab
ROENTGEN THERAPY
myelitis following, 1136—E
of acne vulgaris evaluated, [Andrews & others] *1107
of cancer of hypopharynx, [Antoniazzi] 1083—ab
of chronic infection of sinuses, 510
of nasopharynx vs. radium therapy for benign conditions, [Garland & others] *454

ROENTGEN THERAPY—Continued
of pituitary in malignant exophthalmos, [Beierwaltes] 1533—ab
of supraspinatus tendinitis, [Steen] 400—ab
of thoracic sympathetic ganglions for hypertension, [Wolf] 1540—ab
of tonsillitis, [de Jong] 1357—ab
spray, of leukemia, [Osgood] 674—ab
technic in skin cancer, [Scholte] 1450—ab
ROENTGENOGRAPHY: See Roentgen Rays, diagnosis; Roentgen Rays examination
RORSCHACH TEST
seminars on, Illinois, 204
ROUBINOVICH, JACQUES, death, Paris, 493
ROUNDWORMS, Infection with: See Ascariasis
ROYAL
Cancer Hospital Centenary, London, 1148
Society holds demonstration at Burlington House, London, 1148
RUBBER
cot to stimulate reflex defecation, [Pollock & others] *1557
gloves, dangers in careless removal, [van der Kuyp] 217—ab
gloves, dermatitis and leukoderma due to, [Botvinick] 600—ab
glove powder, effects on eye, [Schwartz] 1443—ab
RUBEOLA: See Measles
RUNYON (Damon) Memorial Fund: See Foundations
RUPTURE: See Hernia: Spine, intervertebral disk; Stomach
RURAL COMMUNITIES
cause of maternal death in rural South, [Ferguson] *1388
County Health Department: See Health
Health Conference, (Arkansas) 1139; (Indiana) 1139
Health Council organized, Oregon, 1518
scholarship physician (first) begins practice, Indiana, 1428
scholarship to provide physicians, (Md.) 205; (Ky.) 855
tuberculosis, Paris, 393
RUTABAGAS
goiter and, [Greenwald] 1248—C
RUTIN
treatment plus ascorbic acid in rheumatic fever, [Schnur] 972—ab

S

SN 7618: See Chloroquine
SADDLE Block: See Anesthesia, spinal
SAILORS: See Navy, United States
SAKE
Korean, methyl alcohol poisoning from drinking of, [Keeney] 401—ab
SALARIES: See Income; Wages
SALICYLATES: See Acid, acetylsalicylic; Acid, p-aminosalicylic
in Blood: See Blood
SALICYLAZOSULFAPYRIDINE
name recognized by Council, 927
SALIVA: See also Xerostomia
ptyalism during pregnancy, 1545
SALMONELLOSIS
outbreak from Turkey eggs, Minnesota, 568
SALT: See also Sodium chloride
iodized, A. M. A. resolution on stamps of approval for packages of, 942
persistent salty taste, 689
SAN FRANCISCO
incidence of trichinella infections in, 1950, [Beard] *331
Medical Society established loan fund for interns and residents, 1601
SAN JOAQUIN Valley Fever: See Coccidioidomycosis
SANATORIUM: See Tuberculosis
SANDERS Oscillating Bed (Vasooscillator), 1325
SANITARY ENGINEERS
examination for, in U. S. P. H. S., 275
SANITATION: See Health
Industrial: See Industrial Hygiene
SARCOIDOSIS
Boeck's sarcoid with complete heart block mimicking carotid sinus syncope, [Simkins] *794
diagnosed by subclavian lymph node biopsy, [Weiss & others] *1221
treatment, 78
SARCOMA: See also Lymphosarcoma
of endometrium, [Corscaden] 1442—ab
SCALDS: See Burns
SCALP
does shaving of, cause hair to curl? 1366
Ringworm of: See Tinea capitis
SCANDINAVIAN: See Danish; Norwegian; Swedish
SCAR: See Cicatrix
SCARLET FEVER
prevention, penicillin, Sweden, 1339
SCHAUMANN-Besnier-Boeck Disease: See Sarcoidosis
SCHERING Award: See Prizes
SCHILLER TEST: See Uterus Cancer
SCHISTOSOMIASIS
swimmer's itch, 1104—ab
urinary, Turkey, 1149
SCHIZOPHRENIA: See Dementia Precox
SCHOLARSHIPS: See also Fellowships
Alpha Chi Omega, in cerebral palsy, 1333
American Society of Plastic and Reconstructive Surgery, 661
Andrus premedical, at Oberlin, Ohio, 1053
cerebral palsy, 857
Chicago Medical School, 658
rural, to provide physicians, (Md.) 205; (Ky.) 855; (first physician begins practice, Ind.) 1428
SCHOOL CHILDREN: See Children
SCHOOLS: See also Education: Students; University
communistic teaching in, A.M.A. resolution on, 849; 1598—E
diarrhea epidemic in, [Ingalls & Britten] *710
for Medical Record Librarians: See Medical Record Librarians
for Technologists: See Technologists
health conference (3rd), W. Va., 1240
health program for children with heart disease, [Doster] 872—ab
health service, 736
health services, publication of book on, authorized by A. M. A. Board, 262
of Basic Medical Science: See Basic Science
of Nursing: See Nurses and Nursing
of Occupational Therapy: See Occupational Therapy
of Physical Therapy: See Physical Therapy
physicians, training for, Wisconsin, 1054
Premedical Work: See Education, Medical, premedical
Teachers: See Teachers
SCHOOLS, MEDICAL: See also Education, Medical; Graduates; Students, Medical; University; under names of specific schools
Army Medical Graduate School, Dr. Edsall to aid, 1245
basic values in, objectives of Subcommittee on Preprofessional Education of Survey of Medical Education, [Severinghaus] *79
Canadian, graduates examined for licensure in U. S., 1950, *344
candidates examined by state boards according to, 1950, *340; *344
candidates licensed by reciprocity and endorsement, according to, *352; *353
diplomates from individual medical schools, 1950, *375
federal aid to, Commission on Financing Higher Education opposes, 376—E
federal aid to, proposed legislation on, 1330
federal legislation: United States Medical Academy, 382
financial aid for construction only, A.M.A. Committee report, 837
financial aid, National Fund for Medical Education and American Medical Education Foundation, 258—E; 262; 377—E; 655—E; (A.M.A. resolution on) 850; 944; 1138; (grants to 79 schools) 1236—E; 1238; (list of contributors) 1327—E; 1329
foreign, failures before state boards by licentiates, 1950, *347; *370; 377—E
foreign, Lady Hardinge Medical College for Women at New Delhi, India, Dr. Birch appointed dean, 1516
foreign, list of prepared by A.M.A. Council and Council of Association of American Medical Colleges, *363; 378—E
graduates of approved medical schools and others registered, 1922-1950, *359; *362
internships by for degree, *355; *359
new: Morgantown selected for West Virginia University Medical School, 1332
new: University of Ottawa Faculty of Medicine approved by A.M.A., 1152
Premedical Work: See Education, Medical
psychotechnical tests for entrants to, Sweden, 748
source of candidates examined for licensure in U.S., 1950, *344
survey of Medical School of Formosa by Economic Cooperation Administration, 391
Teaching in: See Education, Medical
unapproved, failures before state boards by licentiates, 1950, *344; *347; *370; 377—E
unapproved, graduates of, registered, 1945-1950, *360; *362
Washington University ECA teaching program in Bangkok, 265
Women's Medical College, Dr. Gordon to head, 948
Yeshiva University Medical Education Council, New York, 660
SCIENCE: See Research
Basic Science: See Basic Science
SCIENTIFIC TESTS: See Medicolegal Abstracts at end of letter M
SCIENTISTS
U. S. background of, 1591—ab
SCLERODERMA
treatment, ACTH intravenously, [Mandel & others] *546
treatment, cinchoninic acid derivative, [Rennie] 683—ab
treatment, cortisone, [Taubenhaus] 960—ab
visceral lesions and endocrine disturbances in, [Gil] 1257—ab
SCLEROSIS: See also Arteriosclerosis; Liver cirrhosis; Nephrosclerosis; Otosclerosis
endocardial, [Edmonds] 1612—ab
multiple, 878
multiple, accident proneness in, [Bennett] 1161—ab
multiple, center, Dr. Deyton to direct, Mich., 1053
multiple, in New Orleans and Winnipeg, 741
multiple, mortality and disability in, statistical estimate of prognosis, [MacLean & Berkson] *1367
multiple, National Multiple Sclerosis Society, (grant for biochemical studies), 44; (distribute rehabilitation manual), 949
multiple, ocular manifestations in, [Yaskin] 1443—ab
multiple, research, Illinois, 483
multiple, succinate therapy, [Aird] 1535—ab
multiple, treatment, [Spota] 1268—ab
Spinal: See Tabes Dorsalis
SCOTT Demand Inhalators, 650
SCRATCHES
cat, disease due to, [Thélin] 71—ab; [Greer] 1261—ab
SCREENING Tests: See Diagnosis
SCRUB Typhus: See Tsutsugamushi Disease
SEA: See Navy; Ships
SEATWORMS: See Oxyuriasis
SECOBARBITAL Sodium, N. N. R., (Lilly) 34
SEDATIVES: See Hypnotics
SEDIMENTATION Rate: See Blood sedimentation
SEIZURES: See Convulsions; Epilepsy
SELECTIVE SERVICE: See Medical Preparedness
SELF-MEDICATION
hypervitaminosis A, [Sulzberger & Lazar] *788; [Bair] *1573
self-injection of mercurial diuretic, [Krehbiel & Stewart] *250
SELF-MUTILATION
primary hypogonadism: 24 year man cut off both ears, penis and testis, 1458
SELL, ADOLPH, centenary, Denmark, 1607
SEMEN: See also Spermatozoa
analysis in abortion, [Jones & Delfs] *1215
studies and fertility, [Tyler] *307
SEMIKON hydrochloride, N.N.R. (Massengill) 1134
SENILITY: See Old Age
SENSATION
of hunger and appetite compared, 1312—ab
of thirst, mechanism, 1580—ab
sensitivity of rectum and anal continence, [Goligher] 1080—ab
SENSES: See Hearing; Smell; Taste; Vision
SENSITIVITY: Sensitization: See Allergy
SEPTICEMIA: See also Meningococcemia
treatment, polymyxin B and polymyxin E, [Kagan] 678—ab
SERODIAGNOSIS: See Syphilis
SEROTONIN
hormonal cerebral vasopressor substance, 1326—E
SERUM
Blood: See Plasma; and subheads under Blood
Sickness: See Allergy
Therapy: See Hemotherapy
SERUTAN
ingestion, complete obstruction of esophagus after, [Hinkel] *1129
SERVICEMEN: See also Armed Forces; Army, U.S.; Korean War; Medical Preparedness; Navy, U.S.; Veterans
maternity benefits for wives of, 565
SEX: See also Fertility; Sterility; Sterilization, Sexual
advisability of surgical reversal of, in female pseudohermaphroditism, [Hinman] *423
Desire: See Libido
disorders, sex hormones for, [Kaufmann] 1355—ab
Function, Decline of: See Menopause
Function, Development of: See Adolescence
Glands: See Gonads
Hormones: See Androgens; Estrogenic Substances; Gonadotropins
Intercourse: See Coitus
Intergrades: See Hermaphroditism
Offenders: See also Prostitutes
offenders: Sexual psychopath, [Karpman] *721
Organs: See Genitals
Perversion: See Homosexuality
SEXUAL STERILIZATION: See Sterilization, Sexual
SHARMAN, A., introduction at A.M.A. meeting, 843
SHARP & DOHME, INC.
fund for fundamental research by, 1241
SHATTUCK Award: See Prizes
SHAVING
scalp cause hair to curl? 1366
SHERMAN ANTI-TRUST ACT: See Medicolegal Abstracts at end of letter M
SHINGLES: See Herpes zoster

SHIPS: See also Navy
floating clinics of Alaska Department of Health, 740
The Stowaway (food storage and sanitation) (film review), 1526
SHOCK
Allergic: See Allergy
arterial perfusion of liver in, [Delorme] 294—ab
blood changes which predispose to, [Philpott] 1446—ab
commission on, Pa., 1429
coronary thrombosis after, [Davis] 1343—ab
cyclopropane, (reply) [Ruben] 608
Electric, Therapeutic: See Electric shock treatment
Therapeutic: See also Electric shock treatment
therapeutic, indications for, Paris, 955
treatment, arterenol, [Luber & others] *1592
SHOES: See also Hosiery
fitting fluoroscopes, hazards of, [Van Allen] 1076—ab
SHORT WAVE: See Diathermy
SHOULDER: See also Humerus
hand syndrome after myocardial infarction, procaine block of stellate ganglion for, [Swan & McGowan] *774
hand syndrome, humeroscapular periarthritis: autonomic function tests, [Bergholt] 1453—ab
SICK: See Disease, chronic; Patients
Transportation of: See Ambulances
SICKLEMIA: See Anemia, sickle cell
SICKNESS: See Disease
Convalescence from: See Convalescence
Insurance: See Insurance, sickness
Serum: See Allergy
SIGERIST, H. E., 60th birthday, Switzerland, 577
SIGHT: See Vision
SILICONE Bouncing Putty, 817
SILICOSIS: See Pneumonoconiosis
SIMMONDS' DISEASE: See Pituitary cachexia
SIMULATION: See Malingering
SINGULTUS: See Hiccup
SINUS
Carotid Sinus: See Carotid Sinus
Maxillary: See Maxillary Sinus
SINUSES, NASAL
allergy in, childhood sinobronchitis, [Price] 754—ab
chronic infection; roentgen therapy indicated: 510
SIWE-Letterer Disease: See Letterer-Siwe Disease
SJÖGREN'S SYNDROME
[Ellman] 1082—ab
treatment, ACTH, [Frenkel] 759—ab
SKIN: See also Dermatology; Tissues
Blisters on: See Blister
Burn: See Burns
Cancer: See also Epithelioma
cancer, technic of irradiation in, [Scholte] 1450—ab
Disease: See also Eczema
disease ACTH in, clinical experiences, 749; [Brodthagen] 759—ab; 973—ab
effects of ACTH, cortisone and pregnenolone, [Brunner] 1346—ab
erosion, in adult chronic porphyria, [Brunsting & others] *1207
Eruptions: See Eruptions
extracts, effect on wound healing, [Putkonen] 1448—ab
grafting for the general practitioner, [Barker] *1219
grafting, pedicle graft for ulcers of lower extremities, [Brummelkamp] 682—ab
grafts, cortisone effect on survival, [Billingham] 1615—ab
Hemorrhage: See Purpura
Inflammation: See Dermatitis
inoculation tuberculosis in workers, [Grady] 1257—ab
insufflation of air under skin in pleurisy, [Gerrits] 1081—ab
interdigital syphilitic lesions, simulating dermatophytosis, [Dexter] 1342—ab
Itching: See Eczema
lesions, thorium X treatment, [Sher] 66—ab
Pigmentation, Loss of: See Vitiligo
Rash: See Eruptions
Reaction: See Allergy; Dermatitis venenata; Skin test
resurfacing foot by plastic surgery for defects, [Brown & Fryer] *628
Scleroderma: See Scleroderma
scraping, staining fungi in, with basic fuchsin, in [Kligman & Mescon] *1563
Test: See also Tuberculin
test, pertussis agglutinogen, [Barysh] 215—ab
Transplantation: See Skin grafting
Ulcers: See Decubitus; Ulcers
SKULL: See Cranium
SLEEP: See also Unconsciousness
Induced: See Anesthesia
sleeping pills containing an emetic, 977
SLEEPING DISEASE: See Trypanosomiasis
SMALLPOX
vaccine, chick embryo method of preparing, [Buddingh] 869—ab
SMART, SIR MORTON
Graduated Muscle Contraction Unit, 338
SMEAR: See also Urine sediment; Uterus Cancer
technic in diagnosis, [Blank & others] *1410
SMELL: See also Odor
loss of sense of: anosmia, 298; 1272
SMITH (Ferris and Florence) Foundation: See Foundations
SMITH (Harold W.) Lecture: See Lectures
SMITH, RAY E., death, Indiana, 1517
SMITH (Theobald) Award: See Prizes
SMOKING: See Tobacco
SNAKES
desire information on bites from, [Wilson] 1526—C
SOCIAL
Insurance: See Insurance
SOCIALIZED MEDICINE: See Hospitals, expense insurance; Insurance, sickness; Medicine, socialized; Medicine, state
SOCIETIES, MEDICAL: See also American Medical Association; under names of specific societies; list of Societies at end of letter S
A.M.A., President's page, 822
county, first Illinois "county medical society level" conference on public relations, 41
county meetings, A.M.A. resolutions on combining hospital staff meetings with, 853
county, survey of activities, 846
loans for interns and residents, San Francisco, 1601
nursing homes: their part in community's attack on chronic illness, 562—E
Plans for Medical Service: See Medical Service Plans
rally to support American Medical Education Foundation, 377—E
Society for Crippled Children opens new hospital, Israel, 1248
state, death of executive secretary-treasurer: Mr. Johnson, Va., 568
state, death of executive secretary: Mr. R. E. Smith, 1517
state, health exhibits at county fairs sponsored by, Conn., 1516
television production packets, 479—E
Woman's Auxiliary: See Woman's Auxiliary
World Medical Association: See World Medical Association
SOCKET
suction, proper selection of patients for above knee artificial leg, [Bechtol] *625
SODA
Baking: See Sodium bicarbonate
SODIUM
adsorbent resins—warning, [Lipman] 395—C
ascorbate, solution, N.N.R., (Gold Leaf Pharmacal) 34
bicarbonate treatment of mismatched blood transfusion used in 1925, [Baker & Dodds] 1063—C
carboxymethyl cellulose to prevent gastrointestinal upsets from aureomycin, [Greenspan] 214—ab
Chloride: See also Salt
chloride vs. ammonium chloride in treating bromoderma, [Cornbleet] *1116
citrate in lead poisoning, [Hardy] 497—ab
folate, N.N.R., (Lederle) 1134
gentisate, analgesic action, [Batterman] 1536—ab
Phenobarbital: See Phenobarbital
radioactive, in research, diagnosis, and therapy, (Council article), [Kelsey] *1133
succinate therapy in multiple sclerosis, [Aird] 1535—ab
SOIL
Bacteria, Preparation from: See Tyrothricin
SOLDIERS: See Armed Forces; Army; Korean War; Medical Preparedness; Servicemen; Veterans
SOLOMON Foundation: See Foundations
SOLUTION: See Fluids
SOLVENTS
for plastics: ethylene dichloride, fatal poisoning, [Lochhead & Close] *1323
SOMATOTROPIC HORMONE
[Selye] 290—ab
SOOT LUNG: See Pneumonoconiosis
SORE Throat: See Throat
SOUND: See also Noise
waves, effects of ultrasonic energy on spinal cord and nerves, [Anderson] 677—ab
waves, ultrasonics in diagnosis, 1033—E
waves, visual problems of supersonic speeds, [Byrnes] 675—ab
SOUTH
cause of maternal death in rural South, [Ferguson] *1388
SOUTH EAST Asia Medical Conference (first) Philippine Islands, 1150
SOYALAC-hypo-allergenic infant food, 731
SPACE Medicine Society organized, 741
SPAS: See Health resorts
SPASM: See also Tetany
in spinal cord injuries, [Pollock & others] *1553
SPASTICITY: See also Paralysis, spastic
in paraplegic patient, [Dinken] *233
SPEAKERS: See also Speech
psychiatric speakers bureau, Pa., 1518
SPECIALISTS: See also Pathologists; Psychiatrists; etc.
Certification: See American Board
incomes, 1237—E; [Dickinson & Bradley] *1249
looks at everyday medical care in industry, (orthopedics) [Billig] *1179; (psychiatry) [Due] *1183; (cardiology) [Overholt] *1186
SPECIALTIES: See also under types of specialties as Dermatology; Gynecology; Obstetrics; Ophthalmology; Pathology
Certification in: See American Board
graduate continuation courses for physicians in, 563—E; *581
specialization, 641—ab
SPECIFIC GRAVITY
of urine, 1088
SPECIMENS
collecting for laboratory demonstration and isolation of fungi, [Ajello] *1581
SPECTACLES: See Glasses
SPEECH: See also Speakers
A.M.A. resolution on free speech, 936
defects, carbon dioxide treatment of stuttering, Meduna method, 1273
defects, correction, Denmark, 1607
defects, service for veterans who stutter, 667
problems, electroencephalography in, [Marcus] 59—ab
Tennessee Hearing and Speech Foundation, 1430
vocal training, (reply) [Froeschels] 418; (reply National Hospital for Speech Disorders) [Clark] 418
SPENCER, T. B., appointed executive director of committee on medical sciences, 1147
SPERMATOZOA
low sperm count in television worker, 1546
necrospermia, 298
oligospermia and chronic prostatitis, 768
rare for pregnancy to result from deposition on vulva without intromission? (reply) [Kelly] 692
SPHINCTER MUSCLES
anal, saving resections of rectum, [Gaston] *1486; 1572—ab
rectal, stretching by patient's finger and rubber cot to develop reflex defecation, [Pollock & others] *1557
sphincterotomy for pancreatic disease, 38—E
SPINAL ANESTHESIA: See Anesthesia, spinal
SPINAL CORD
damage in pernicious anemia, relation to folic acid and vitamin B_{12}, 299
Disease: See also Encephalomyelitis; Poliomyelitis
disease (progressive) syndromes with herniation of cervical intervertebral disks, [Strully & others] *10; (correction) 387
injuries, management of residuals, [Pollock & others] *1552
injuries, reconstructive surgery for decubitus ulcer complicating, [Comarr] *229
injuries, urological aspects of rehabilitation in, [Bors] *225
radiation myelitis, 1136—E
Sclerosis: See Sclerosis, multiple
ultrasonic energy effect on, [Anderson] 677—ab
SPINAL FLUID: See Cerebrospinal Fluid
SPINAL PUNCTURE
Boschi's treatment (modified) of tetanus, [Bravo Mateo] 1269—ab
head injuries and, 1363
translumbar arteriography, [Evans] 283—ab
SPINE: See also Ribs
ankylosing hyperostosis in old age, [Forestier] 502—ab
ankylosing spondylitis, pregnancy in, [Hart] 1352—ab
arthritis, ACTH intravenously for, [Mandel & others] *546
arthritis, vitamins concentrate not cause of, 1366
cervical vertebral syndrome, [Nava] 969—ab
fractures of dorsal and lumbar vertebrae, [Baab & Howorth] *97
intervertebral disk (cervical herniated), progressive spinal cord disease, [Strully & others] *10; (correction) 387
intervertebral disk (cervical), lateral herniations, [Lemmon] 1350—ab
intervertebral disk (cervical), protrusion of, [Müller] 407—ab
intervertebral disk (prolapsed), surgical intervention for, [Werner] 1451—ab
intervertebral disk (prolapsed lumbar), surgical treatment, [Kuhlendahl] 683—ab
intervertebral disk, surgical treatment of lumbar disk lesions, 732—E
SPIROCHETOSIS
pulmonary, [Mendelson] *727
SPLEEN
aspiration, clinical and hematological study [Morrison & others] *1575
Enlarged: See Splenomegaly
Excision: See Splenectomy
hypersplenism (secondary), surgical management, [Lord] 966—ab

SPLENECTOMY
for hypersplenism, [Lord] 966—ab
SPLENOMEGALY
Banti's syndrome, portal roentgenography during operation for, [Santy] 504—ab
Felty's syndrome, [Hutt] 1083—ab
follicular, giant, [Tonelli] 1268—ab
"SPLIT-EYE"
in poultry: relation to infectious hepatitis in man, 1544
SPONDYLITIS: See Spine
SPONGE
surgical, new design of radiopaque element for, [Levene] *1320
SPORTS: See Athletics: Swimming
SPOTTED FEVER: See Rocky Mountain Spotted Fever
SPRAY: See Insecticides
SPUTUM
Vinegar eel in, [DeMay & others] *645
SQUINT: See Strabismus
STAINING
fungi in skin scraping with basic fuchsin, to diagnose ringworm and moniliasis, [Kligman & Mescon] *1563
STAMMERING: See Speech defects
STAMPS: See Postage Stamps
STANDARD Nomenclature of Diseases and Operations: See Terminology
STAPHYLOCOCCUS
endocarditis, antibiotics in, [Levinson] 870—ab
infections (generalized), treatment, especially penicillin, [Ramsay] 761—ab
penicillin sensitivity in, [Sherris] 603—ab
resistant strains, [Rountree] 761—ab
STARVATION: See Hunger
STATE
Board: See State Board *following*
Department, science advisor to: Joseph B. Koepfli, Ph.D., 52
Health Department: See Health
Hospital: See Hospitals
Journal Advertising Bureau: See American Medical Association
Legislation: See Laws and Legislation
list of states requiring annual registration; fees required, *361
Medicine: See Medicine, state
Society: See Societies, Medical
STATE BOARD: See also Licensure
consolidated examinations, 1950 according to school, *345; 346
endorsing certificates of National Board of Medical Examiners, *373
Federation of State Medical Boards resolution on foreign graduates, *369
Number, May 26, *339; 377—E
officers, list of, *369
premedical requirements, *354; *357
STATEMENTS, Physicians': See Fees
STATISTICS: See Vital Statistics
STAUDACHER, R. F., appointed executive secretary of Student A.M.A., 1138
STEAMSHIP: See Ships
STELLATE Ganglion Block: See Ganglion
STERILITY
ACTH and cortisone, 765
etiology, low sperm count in television worker, 1546
etiology, roentgen rays cause of, in roentgenologist? 1544
etiology, semen studies, [Tyler] *307
Inducing: See Sterilization, Sexual
male, [Bayle] 217—ab
necrospermia, 298
Society for Study of, 207
STERILIZATION, BACTERIAL: See also Antiseptics
cold, of instruments, 1087
STERILIZATION, SEXUAL: See also Castration
in pregnancy and familial erythroblastosis, [Dahr] 1355—ab
STERNUM
tumors, cartilaginous, [O'Neal] 63—ab
STEROIDS: See also under names of specific steroids as 17-Ketosteroids
A.M.A. Subcommittee on Steroids and Cancer, meeting of, 655—E
treatment of rheumatoid arthritis, [Norcross] 1349—ab
STETLER, C. JOSEPH, new secretary to A.M.A. Council on National Emergency Medical Service, 39
STEVENS-JOHNSON SYNDROME
erythema multiforme exudativum, 1424—E; [Ashby] 1616—ab
STEVENSON-Black Cancer Foundation: See Foundations
STILBAMIDINE
treatment of systemic blastomycosis [Schoenbach & others] *1317
STILBESTROL: See Diethylstilbestrol
STILLBIRTH: See also Medicolegal Abstracts at end of letter M
dead fetus, 690
Kell erythroblastosis as cause of, [Prokop] 1539—ab
STIMULATION
electric, in respiratory emergency, [Zimmermann] *1025
STOCKINGS: See Hosiery
STOMACH: See also Gastro—
aberrant pancreas of, [Benner] 758—ab
acidity, achlorhydria, achylia gastrica and pernicious anemia precancerous conditions? [Weinberg] 498—ab
acidity, determination without intubation using cation exchange resin, 260—E
acidity, hydrochloride acid secretion in cardiopathy, [Furbetta] 1615—ab
cancer, any hazard from annual x-ray examinations? 608
cancer, aspirated cells in differential diagnosis, [Porter] 756—ab
cancer, cytology in diagnosis, [Seybolt] 1158—ab
cancer, discovery by mass radiography, Norway, 956
cancer (early), diagnosis, [Lawrence] 1345—ab
cancer, gastric phosphatases in diagnosis, [Rønnike] 1358—ab
cancer in Uruguay, [Larghero Ybarz] 967—ab
contents, aspirated into lungs during anesthesia, [Culver] 1072—ab; 1236—E
crises, treatment, 1175
Disease: See Gastroenteritis
diverticulum, [Van Wezel] *645
foreign body, phytobezoar, Turkey, 1150
function after gastric instillation of meal, [Hunt] 1615—ab
Gaseous Distention: See Flatulence
gastroscopy, risks, [Jones] 1168—ab
Hemorrhage: See Peptic Ulcer
inflammation, roentgen diagnosis, [Müller] 1539—ab
insufficiency: diagnosis, sequels; treatment, [Forsgren] 1081—ab
linitis plastica, [Kolpak] 604—ab
rupture, neonatal, [Ross & others] *1312
secretion, gastric acid phosphatases in diagnosis of cancer, [Rønnike] 1358—ab
Surgery: See also Gastroenterostomy; Peptic Ulcer, surgical treatment
surgery, cause of post-gastrectomy syndrome, [Butler] 1615—ab
surgery, diet following gastrectomy, 1363
transposition of colon segment as gastric reservoir, [Lee] 1078—ab
tumors, associated with pernicious anemia, [Debray] 1452—ab
tumors, leiomyomas, 1588—ab
Ulcer: See Peptic Ulcer
STOMATITIS
aphthous, canker sores, 75
Vincent's: See Angina, Vincent's
STOOLS: See Feces
STORAGE
of Blood: See Blood Transfusion, blood bank
of Food: See Food
STRABISMUS
in young infants, (reply) [Smith] 300
STRAIN: See Effort
STREAMS: See Water
STREET Accidents: See Automobiles accidents
STREPTOCOCCUS
erysipelatis needed, [Reimann] 1151—C
fecalis endocarditis, therapy, [Loewe] 1158—ab
hemolytic, prevent rheumatic fever by prompt penicillin therapy of respiratory infections, [Massell & others] *1469
hemolytic, sore throat, cortisone for post-streptococcic state, [Doerner & others] *641
infections, cortisone for, [Hahn] 1074—ab
tonsillitis, antibiotics effect on, [Brink] 752—ab
STREPTODORNASE
treatment of postpneumonic empyema, [Tillet] 964—ab
STREPTOKINASE
treatment of postpneumonic empyema, [Tillet] 964—ab
STREPTOMYCIN
acts as growth stimulants, 479—E
bacteriologic dependence on, [Dufourt] 1167—ab
Dihydro—: See Dihydrostreptomycin
hypersensitivity to, [Cohen] 755—ab
toxemia, vestibular function after, [Chase] 870—ab
toxicity: aplastic anemia, [Womack] 1158—ab
toxicity, mental disorders during treatment of tuberculous meningitis, [Külz] 218—ab
Treatment: See also Bronchus, tuberculosis; Letterer-Siwe Disease; Meningitis, influenza; Meningitis, tuberculous; Pericarditis, tuberculous; Trachea tuberculosis; Whooping Cough
treatment and icterus, [Janbon] 604—ab
treatment, cure in primary pneumonic plague, [Estrade] 1082—ab
treatment, intermittent, [James] 962—ab
treatment, oral administration, Italy, 494
treatment plus *p*-aminosalicylic acid, [Tempel] 962—ab; [Birath] 1168—ab
treatment plus *p*-aminosalicylic acid in tuberculous arthritis, 1366
treatment plus artificial pneumoperitoneum in tuberculosis of lung, [Brock] 1259—ab
treatment plus massive doses of penicillin in endocarditis, [Staehling] 1170—ab; [Kleinfelder] 1173—ab
STREPTOMYCIN—Continued
treatment plus penicillin in enterococcic endocarditis, [Robbins] 752—ab
treatment plus penicillin in penicillin resistant endocarditis, [Cates] 1165—ab
treatment plus penicillin injection and sulfadiazine orally in purulent meningitis, [Bonaba] 1164—ab
treatment plus potassium iodide in tuberculosis of lung, [Woody] 1258—ab
treatment plus sulfadiazine in plague, [Ghosh] 70—ab
treatment, preventive, in thoracoplasty operations, [Mann] 1172—ab
treatment, resistant strains of staphylococci, [Rountree] 761—ab
treatment, resistant tubercle bacilli, [Adcock] 60—ab; [Lewis] 1531—ab
treatment, resistant tubercle bacilli isolated from patients treated with, [Ferebee] 681—ab
treatment resistant tuberculosis, [Carr] 1071—ab
treatment, tuberculin sensitivity during, [Leitner] 218—ab
tubercle bacillus in intermittent contact with, [Bernard] 1169—ab
STRESS
disorder: ulcerative colitis, [Grace & Wolff] *981
incontinence, physiologic therapy, [Kegel] *915
incontinence, surgical correction: Kelly also Kennedy operation, [Counseller] *27
STRITTMATTER Award: See Prizes
"STROKES": See Brain hemorrhage
STRUMA: See Goiter
STUDENTS: See also Schools: University
foreign, problems of Hebrew University, Israel, 1247
Nurses: See Nurses and Nursing
STUDENTS, MEDICAL: See also Education, Medical; Graduates; Interns and Internships; Schools, Medical
A.M.A. resolution on exchange of, 852
A.M.A. resolution on preceptorship for, 850
deferment, letter regarding, 943
professional educational requirements, *354; *358
reciprocity and endorsement policies, *348; *350; *352
Fellowships: See Fellowships
Foreign: See Physicians, foreign
fund to aid by Joseph Collins Foundation, 267
Hebrew University, Israel, 1247
loan funds for interns and residents to continue previously planned program of training, 1601
physical examination, Belgium, 1060
psychotechnical test to entrance to medical schools, Sweden, 748
Scholarships: See Scholarships
Student A.M.A. (2 delegates seated for the first time at A.M.A. session) 825; (Mr. Staudacher appointed executive secretary) 1138
Teaching: See Education, Medical
to serve clerkships, South Dakota, 739
Women: See Physicians, women
STUTTERING: See Speech defects
SUBARACHNOID Hemorrhage: See Meninges hemorrhage
SUBDURAL Hematoma: See Meninges
SUCCINATE
therapy in multiple sclerosis, [Aird] 1535—ab
SUCTION
proper selection of patients for above knee artificial leg, [Bechtol] *625
SUGAR: See also Carbohydrates; Dextrose
in Blood: See Blood
in Urine: See Diabetes Mellitus; Glycosuria
Research Foundation grants, 740
SUGGESTION, Mental: See Psychotherapy
SUICIDE
acetylsalicylic acid (aspirin) intoxication, [Doolan & others] *105
acute yellow phosphorous poisoning, 478—E
alcohol and violent death, [Spain & others] *334
fetal: premature separation of placenta, [Chalmers] 969—ab
following cortisone treatment, [Borman & Schmallenberg] *337; [Hulett] 1151—C
rate, of Danes compared with Dutchmen and Finns, Denmark, 276
SULFADIAZINE
treatment, oral, plus injection of penicillin and streptomycin in meningitis, [Bonaba] 1164—ab
treatment plus streptomycin in plague, [Ghosh] 70—ab
SULFAPYRIDINE
treatment of febrile relapsing nonsuppurative panniculitis, (reply) [Arnold] 300
SULFOCYANATES: See Thiocyanates
SULFONAMIDE COMPOUNDS
Sulfadiazine: See Sulfadiazine
Sulfapyridine: See Sulfapyridine
treatment of acne vulgaris, [Andrews & others] *1107
treatment of tonsillitis, [MacDonald] 503—ab
wholesale use in epidemic of respiratory system infections, 221

SULFOXONE (diasone)
treatment of toxoplasmosis, [Cross] 1350—ab
SUMMER
Clinics: See Clinics
SUNLAMPS: See also Ultraviolet Rays
Sylvania, Model RS, 1325
SUPERFETATION
defective ova or [Salfelder] 69—ab
SUPERSONICS: See Sound Waves
SUPPLIES: See Medical Supplies
SUPPURATION: See Abscess; Otitis Media; Ulcers
SUPRARENALS: See Adrenals
SURGEONS: See also Medicine, profession of; Physicians; Surgery
barber, London, 1148
does the resurgence of "general practitioner" a threat to: [Boyd] 1151—C
hospital, slow promotion of, Sweden, 55
International College of, (annual meeting) 1431
possibility of his transmitting infectious hepatitis to patient, 607
SURGERY: See also under specific diseases, organs and operations as Adenoidectomy; Cesarean Section; Peptic Ulcer, surgical treatment; Stomach surgery; Thyroidectomy
alcohol; intravenous use in surgical patient, [Karp & Sokol] *21
American Board of: See American Board
Amputation: See Amputation
Anesthesia in: See Anesthesia
biopsy during operation, Brazil, 671
Diathermy used in: See Diathermy
gastric contents aspirated into lungs during operation, [Culver] 1072—ab
hemorrhage in, reduced with methonium compounds, [Shackleton] 1149—ab
infection of "clean" surgical wounds, [Girdlestone] 1080—ab
infections, aureomycin treatment, [Rutenberg] 1072—ab
Italian Society of, discusses treatment of cancer of rectum, 56
Moving Pictures Concerned with: See Moving Pictures, Medical (Reviews)
Neurosurgery: See Neurosurgery
number of operations performed in 1950; 8,145,873 operations, *122
Orthopedic: See Orthopedics
plastic, awards by American Society of Plastic and Reconstructive Surgery, 661
plastic, ox cartilage in, [Gillies] 1148—ab
postoperative changes in blood, [Wilkinson] 603—ab
postoperative defluvium, 309
postoperative, diet following gastrectomy, 1363
postoperative hyperthermia, cause of deaths in infants, [Bigler & McQuilston] *551
postoperative pain, analgesic effect of dromoran, [Keutmann] 679—ab
postoperative, sensitized clotting time, simple test for, [de Takats] *1370
postoperative study of vagotomy, [Walters] 1077—ab
postoperative tetany, graft embryonic parathyroid tissue in, [Kooreman] 682—ab
postoperative, tracheotomy to prevent pulmonary complications, [Atkins] *241
postoperative use of adrenal cortical extract, [Kelso] 1077—ab
postoperative water metabolism, [Ariel] 399—ab
pre- and postoperative treatment with intravenous amino acids, [Westermann] 1538—ab
reconstructive, for decubitus ulcer complicating spinal cord injuries, [Comarr] *229
STANDARD NOMENCLATURE OF DISEASES AND OPERATIONS, its adoption by hospitals, *123
sudden death after operation, [Shumacker] 63—ab
surgical training, [Lehman] 279—C; [Boyd] 1151—C; [Gorrell] 1340—C
SUTURES
Bunnell's pull-out wire, [Moberg] 760—ab
SWEAT
colored perspiration, 222
dyshidrosis produced by ultraviolet radiation, [Thomson] 684—ab
rate of sweating after ultraviolet radiation, causes of changes in, [Thomson] 684—ab
SWEDISH
Diabetes Association, 1524
Red Cross Hospital in Korea, experiences, 1524
SWIMMING
swimmer's itch or schistosome dermatitis, 1104—ab
SWISS
Antituberculosis Association, 577
Ophthalmologic Association, 43rd convention, 1246
SYDENHAM'S Chorea: See Chorea minor
SYLVANIA Sun Lamp, Model RS, 1325
SYMPATHECTOMY
combined with vagotomy, effect on gastrointestinal tract, [Bingham & others] *1106
for arteriosclerosis, [Edwards] 286—ab
SYMPATHECTOMY—Continued
for hypertension, [Chris] 1165—ab
thoracolumbar, in arterial hypertension, [Ramos] 1359—ab
SYMPATHETIC: See Nervous System, Sympathetic
SYMPOSIUM: See American Medical Association; Malaria
SYNCOPE
Carotid Sinus: See Carotid Sinus
SYNCURINE
death after curare and, [Zimmerman] 864—C; [Lieberman] 1608—C
SYNOVIOMA
benign giant-cell, [Wright] 1353—ab
SYPHILIS: See also Venereal Disease; under specific organ or disease affected
bejel or desert child syphilis, Turkey, 54
cause of blindness in Ohio, [Freeble & Donohue] *1500
Cerebrospinal: See Neurosyphilis
congenital, dental hypoplasias in, [Beecher] 1075—ab
congenital, early and late, treatment with penicillin vs. arsenic, [Debré] 1359—ab
congenital, postulates on transmission by International Union Against Venereal Disease, 259—E
congenital, prenatal prophylaxis, Norway, 956
congenital, treatment in newborn infant, 77; (replies) [Moore; Greenhouse; Schamberg; McConahy] 1090
control, 1031—E
Diagnosis: See also Syphilis, serodiagnosis
diagnostic drifts, deceptions and misses, [Neal] *537
neuropsychosis in children of parents with, [Schachter] 762—ab
serodiagnosis, [Archambault] 1084—ab
serodiagnosis, agreement between blood and spinal fluid tests, 1545
serodiagnosis, positive blood reactions in prospective bridegroom, 417
serodiagnosis, Wassermann, Kahn, and Kline tests compared, [Russo] 1355—ab
transfusions of syphilitic blood, 1088; [Probey] 1537—ab
treatment, aureomycin, in early type, [Rodriquez] 751—ab
treatment, penicillin, [Archambault] 1084—ab
treatment, penicillin alone or plus mapharsen and bismuth, [Jones] 602—ab
treatment, procaine penicillin implantation, single course cure, [Prunes] 1170—ab
SYPHILOLOGY
deficient teaching programs, A.M.A. resolution on, 1040
SYRINGE
needles and mass inoculation technique, [Fleming] 1079—ab
SYRUP
maple syrup substitute, methemoglobinemic cyanosis from corning extract, [Tepperman & others] *923

SOCIETIES AND OTHER ORGANIZATIONS

Acad.—Academy	*Indust.—Industrial*
Am.—American	*Inst.—Institute*
A.—Association	*Internat.—International*
Coll.—College	*M.—Medical*
Commn.—Commission	*Med.—Medicine*
Comm.—Committee	*Nat.—National*
Conf.—Conference	*Pharm.—Pharmaceutical*
Cong.—Congress	*Phys.—Physicians*
Dist.—District	*Soc.—Society*
Div.—Division	*Surg.—Surgery*
Found.—Foundation	*Surgs.—Surgeons*
Hosp.—Hospital	*S.—Surgical*

Acad. of Med. of Toledo and Lucas County, 1129
Adams County (Ill.) M. Soc., 41, 658
Alaska Department of Health, 710
Territorial M. A., 1602
Alcoholics Anonymous, 658, 949
Alpha Chi Omega, 857, 1333
Alumni A. of Cornell University M. Coll., 738
A. of Hahnemann M. Coll., 1239
A. of the Long Island Coll. of Med., 661
A., New York University Coll. of Med., 1140
Amalgamated Clothing Workers, C.I.O., 1518
Am. Acad. of Allergy, 487
Acad. of Dermatology and Syphilology, 286
Acad. of General Practice, 234, 483, 661, 662, 1430, 1518
Acad. of General Practice, Montana Chapter, 1517, 1602
Acad. of Neurology, 486
Acad. of Occupational Med., 258
Acad. of Orthopaedic Surgs., 661
Acad. of Tuberculosis Phys., 385
A. for Health, Physical Education and Recreation, 258
A. for the Advancement of Science, 386
A. of Colls. of Pharmacy, 1332
Societies and Other Organizations—Continued
A. of Genito-Urinary Surgs., 740, 1602
A. of Indust. Phys. and Surgs., 268, 658, 949
A. of Obstetricians, Gynecologists, and Abdominal Surgs., 569
A. of Psychiatric Clinics for Children, 741
Board of Anesthesiology, 264, 660
Board of Obstetrics and Gynecology, 1142, 1518
Board of Pathology, 949
Board of Psychiatry and Neurology, 567, 741
Cancer Soc., 43, 205, 206, 483, 569, 738, 1519
Cancer Soc. Divs.: Colorado, 855; Erie, Pa., 385; Kentucky, 205; Pennsylvania, 948; Philadelphia, 948; Virginia, 740; Wyoming, 44
Chemical Soc., 267, 1431
Chemical Soc. Sections: Chicago, 41; Washington, 204
Coll. of Chest Phys., 386, 1333
Coll. of Chest Phys. Chapters: Illinois, 855; Missouri, 947
Coll. of Phys., 268, 1241
Coll. of Phys., North Dakota Region, 1129
Coll. of Surgs., 268
Cong. of Physical Med., 1431, 1603
Council on Rheumatic Fever, 267
Cyanamid Company, 567
Dermatological A., 267, 856, 1055, 1142
Diabetes A., 44, 569, 1142
Dietetic A., 44, 1142
Electroencephalographic Soc., 1431
Express Company, 1432
Found. for High Blood Pressure, 661
Found. of Occupational Health, 258
Gastroenterological A., 1055
Geriatrics Soc., 207, 1403
Goiter A., 44
Hearing Soc., 1142
Heart A., 43, 207, 267, 660, 661, 857, 949, 1142, 1332, 1518, 1603
Hosp. A., 740
Inst. of Nutrition, 266, 662
Laryngological A., 1053
Leprosy Missions, Inc., 1142
Library A., 740
M. A., 44, 264, 268, 383, 486, 568, 570, 737, 1140, 1240, 1430, 1517
M. Golfing A., 1055
M. Women's A., Inc., 738, 1518
M. Writers' A., 1519
Neurological A., 661
Nurses A., 44
Occupational Therapy A., 1431, 1603
Ophthalmological Soc., 296, 1055
Orthopaedic A., 857
Otological Soc., 662, 1141
Pharm. A., 485
Physical Therapy A., 385, 1241
Phys. Art A., 1142
Proctologic Soc., 207
Psychiatric A., 44, 662, 737, 1210
Psychoanalytic A., 857
Psychosomatic Soc., 386
Red Cross, 737, 1432
Registry of Physical Therapists, 1431, 1603
Rheumatism A., 386, 856
Soc. for Clinical Investigation, 486
Soc. for Pharmacology and Experimental Therapeutics, 662
Soc. for Plastic and Reconstructive Surg., 661
Soc. of Clinical Pathologists, 738
Soc. of European Chemists and Pharmacists, 205
S. A., 44
Therapeutic Soc., 569, 1431
Trudeau Soc., 949
Urological A., 740
Argentina Soc. of Hematology and Hemotherapy, 1439
Arizona A. of Pathologists and Radiologists, 1239
M. A., 383
Radiological Soc., 1239
Soc. of Pathologists, 1239
State Health Department, 855
Arkansas Dental A., 1139
M. Soc., 264, 946, 1139, 1428
Armour and Company, 383, 1431
Laboratories, 741, 1601
Arthritis and Rheumatism Found., 568
A. for Physical and Mental Rehabilitation, 437
of Am. M. Colls., 41
of Am. Schools of Public Health, 258
of Residents and Ex-Residents of Allentown (Pa.) Hosp., 43
of Surgs. of the Southern Railway System, 1142
Asthmatic Children's Aid, 946
Atomic Energy Commn., 737, 740
Audiology Found., 658
Automobile Club of Maryland, 1602
Ayerst, McKenna & Harrison Limited, 43
Baird, David, Josephine and Winfield, Found., Inc., 658
Barbour-Randolph-Tucker (W. Va.) M. Soc., 568
Barnes Found., 949

Societies and Other Organizations—Continued
Belmont Chemical Sales Development Co., 740
Billings, Frank, Found., 41
Biological Photographic A., 1332
Black-Stevenson Cancer Found., 741
Black-Stevenson Memorial Fund, 741
Borden Company Found, Inc., 1239
British M. A., 570
British Royal Soc., 1053
Brown, T. J., and C. A. Lupton Found., 856
California Department of Mental Hygiene, 946
Foods Research Inst., 710
M. A., 1053
State Department of Public Health, 41
Canada, Ministry of Health and Welfare of, 741
Canadian M. A., 487
Nat. Comm. for Education on Alcoholism, Inc., 205
Cancer Research Inst., University of California, 737
Carroll County (Ill.) M. Soc., 1601
Cascade County (Mont.) M. Soc., 384
Charleston (W. Va.), Obstetrical and Gynecological Soc. of, 660
Chicago Civil Defense Corps, 41
Dental Soc., 41
Diabetes A., 204
Gynecological Soc., 946
Heart A., 1516, 1601
Neurological Soc., 1331
Soc. of Internal Med., 946
Soc. of Physical Med. and Rehabilitation, 204
S. Soc., 41
Tumor Inst., 483
Urological Soc., 383
Christian County (Ky.) M. Soc., 855
Chronic Disease Research Inst., 1517
Cincinnati Soc. of Internal Med., 856
Cleveland Soc. of Physical Med. and Rehabilitation, 485
Coll. of Am. Pathologists, 1516
Collins, Joseph, Found., 267
Colorado Department of Health and Hosps., 946
State M. Soc., 855, 1601
Commn. on Acute Appendicitis Mortality, 1429
on Cancer of the M. Soc. of the State of Pennsylvania, 948
on Chronic Illness, 784, 1140
on Shock, 1429
Comm. of the Public Health Federation, 856
Comm. on Statistics of the Blind, 1141
Commonwealth Fund, 384, 855
Community Chest and Council of Hennepin County (Minn.), 568
Conf. of Presidents and Other Officers of State M. A.'s, 267
on Aging, 484
on Human Behavior, 264
on Indust. Vision, 265
Cong. of Anaesthetists, 857
of Electro Radiologists, 267
Connecticut Diabetes A., 658
Public Health A., 41
State Department of Health, 658
State M. Soc., 383, 658, 1428, 1516, 1601
CARE-UNESCO Book Fund, 857
Cook, Thomas, & Son, 1432
Cooperative League Cong., 857
Corps of Engineers, 1432
Council for High Blood Pressure Research, 661
of Home Demonstration Agents, 1139
of New England State M. Socs., 486
County Soc. Officers Conf., 267
Dade County (Fla.) Cancer Inst., 1428
County (Fla.) M. A., 1428
Dallas Southern Clinical Soc., 296
Delta (Miss.) M. Soc., 42
Denver County M. Soc., 1333
Department of Defense Research and Development Board, 855
Dist. of Columbia, M. Soc. of the, 264
du Pont, E. I., de Nemours & Co., 661
E. & J. Manufacturing Company, 737
Economic Cooperation Administration, 265, 948
Erie County (Pa.) Health and Tuberculosis A., 385
Esso Standard Oil Company, 42, 661
European Cong. on Rheumatology, 1241
Farm Bureau Federation, 1139
Federation of Am. Socs. for Experimental Biology, 1210
Florida Acad. of Preventive Med. and Public Health, 946
M. A., 1139
Radiological Soc., 264
Fontoura-Wyeth, Brazil, S. A., 741
Ford Found., 1139
French A. of Studies on Anesthesia and Anesthesiology, 486
Cong. of Gynecology, 738
Friends M. Soc., 385
Fulton County (Ga.) M. Soc., 1516
General Motors Corporation, 661
Genetics Soc. of America, 1141
Geneva (N. Y.) Acad. of Med., 659
Georgia, M. A. of, 567, 1139, 1239
Gerontological Soc., 1603
Gibson Island Research Confs., 386
Golden Rule Found., 266
Gordon Research Confs., 386
Great Falls (Mont.) M.-S. Conf., 384
Guest Lecturers Organization of the University of Texas, 660
Gulf Coast Regional Conf. on Indust. Health, 1603
Harlem Hosp. Tumor Conf., 266
Harvard Cancer Commn., 567
Hawaii Territorial M. A., 44, 660
Health Information Found., 42, 207, 1332
Hektoen Inst. for M. Research of the Cook County Hosp., 1239, 1331
Memorial Fund, 1331
Hematology Research Found., 661, 1239
Herkimer County (N. Y.) M. Soc., 568
Hosp. Children's Aid League, 1054
Housing and Home Financing Agency, 1432
Hyde, Lillia Babbitt, Found., 661
Idaho State M. A., 264
Illinois A. of Blood Banks, 946
A. of M. Health Officers, 658
Civil Service Commn., 41
Neuropsychiatric Inst., 659, 1516
Psychiatric Soc., 855
Soc. for Mental Hygiene, 204
State Department of Agriculture, 483
State Department of Public Health, 483, 737, 946, 1239
State Department of Public Welfare, 1516
State M. Soc., 41, 483, 1601
State Psychopathic Inst., 1516
Indiana A. of Pathologists, 205
Council of Mental Health, 265, 1517
State Board of Tax Commn., 1517
State M. A., 265, 1139, 1428, 1517
Tuberculosis A., 204
Indianapolis M. Soc., 1517
Indust. Hygiene Found., 268
M. A., 268, 949
Inst. for Human Adjustment, 484
for Nuclear Studies, 855
for Psychosomatic and Psychiatric Research and Training, 265
for the Study of Metals, 855
of Clinical Investigation, 1141
of Living, 483
of Med. of Chicago, 41, 567, 1331
of Microbiology, 1430
of Radiobiology and Biophysics, 855
Internat. Acad. of Proctology, 206
Anesthesia Research Soc., 857
A. of Allergists, 486
A. of Gerontological Socs., 1603
Chemical Cong., 1431
Chemical Union, 1431
Coll. of Surgs., United States and Canadian Chapters, 1431
Coll. of Surgs., Wisconsin Section, 660
Cong. of Anesthesiology, 486, 857
Cong. of Clinical Pathology, 738, 741, 947
Cong. of Physical Med., 44
Federation of Physical Med., 41
Fifth, Orthopaedic Cong., 44
Gerontological Cong., 1603
Laytex Corporation, 265
Poliomyelitis Conf., 1432
Soc. of Angiology, 207
Soc. of Clinical Pathology, 738, 741
Italian M. Soc., 384
Jackson County (Mo.) M. Soc., 1140, 1210
Jewish Hosp. A., 1140
Kanawha (W. Va.) Diabetic Lay Soc., 660
M. Soc., 206
Kansas M. Assistant's Soc., 42
M. Soc., 42, 1053
State Board of Health, 41
Karolinska Inst., Stockholm, Sweden, 738
Kellogg, W. K., Found., 43
Kentucky Acad. of General Practice, 1139
Department of Health, 484
Rural M. Scholarship Fund, 855
State M. A., 855
S. Soc., 1517
Tuberculosis A., 1139
King County (Wash.) M. Soc., 206
Lake County (Ill.) M. Soc., 1331
Lakeland Found., 737
Lilly, Eli, and Company, 1239, 1241, 1516
Long Island Psychiatric Soc., 659
Los Angeles Obstetrical and Gynecological Soc., 1053
Louisiana Diabetes A., 947
State M. Soc., 265, 947
Macy, R. H., 661
Mae, Pattie, Fund, 385
Maine, Board of Registration of Med. of, 1428
Department of Health and Welfare, 1055
M. A., 856, 1239, 1428
Manufacturers Life Insurance Company, 570
Marion County (W. Va.) M. Soc., 43
Marquette M. Alumni A., 568
Marquette-Alger County (Mich.) M. Soc., 484
Maryland Department of Health, 1239
M. and Chirurgical Faculty of, 947
Massachusetts Acad. of General Practice, 1239
Department of Public Health, 659
Heart A., 1239
Inst. of Technology, 738
M. Soc., 1239
Mutual Life Insurance Company, 1517
Public Health A., 383
Soc. of Examining Phys., 567
Trudeau Soc., 659
Tuberculosis and Health League, 1239
May Inst. for M. Research, 1140
Mayo Found., 1240
Mayor's Advisory Comm. for the Aged (New York City), 948
McBride, Ellen, Cancer Research Endowment, 205
McDowell County (W. Va.) Mental Hygiene Soc., 385
M. Advancement Trust of Maumee Valley Hosp., 43
Alumni A. of the University of Colorado School of Med., 483
Secretaries and Assistants Club, 658
Medico-Legal Soc. of Great Britain, 738
Memphis Heart A., 1430
Metropolitan Life Insurance Company, 569, 661, 662, 1055, 1142
Michigan Department of Vocational Rehabilitation, 484
Memorial-Phoenix Project, 659
State M. Soc., 205
Midsummer Radiological Conf., 1333
Milwaukee Health Department, 1054
Minerva M. Soc., 384
Minnesota Camping A., 1139
Mississippi State Board of Health, 42, 1602
State M. A., 44, 42
Valley M. Soc., 1519
Missouri State M. A., 41, 484
Monongalia County (W. Va.) M. Soc., 43
Montana Acad. of Oto-Ophthalmology, 1602
M. A., 738, 1602
Obstetrical and Gynecological Soc., 1602
Pediatric Soc., 1602
State Board of Health, 738
Multiple Sclerosis Found., 483
Mutual of Omaha, 856
Nassau County (N. Y.) Cerebral Palsy A., 484
Nat. Acad. of Med., Buenos Aires, 1430
Acad. of Sciences, 386
A. of Boards of Pharmacy, 1332
Broadcasting Company, 207, 661
Cancer Inst., 856
Conf. of Tuberculosis Secretaries, 44
Conf. of Tuberculosis Workers, 949
Found. for Infantile Paralysis, 487, 661, 662, 1140, 1239, 1241, 1517
Heart Inst., 737
M. A., 1333
M. A. Woman's Auxiliary, 1333
M. Council, 661
Multiple Sclerosis Soc., 44, 741, 949
Muscular Dystrophy Found., Inc., 741
Office of Vital Statistics, 1142, 1241, 1333, 1432, 1519, 1603
Research Council, Comm. on Growth of, 1519
Safety Council, 207, 1431
Ski A., 42
Soc. for Crippled Children and Adults, 386, 857, 1142, 1333
States' Conf. on Alcoholism, 1240
Tuberculosis A., 44, 207, 385, 659, 949, 1518
New England Dermatological Soc., 1333
Obstetrical and Gynecological Soc., 386
New Hanover County (N. C.) M. Soc., 1140
New Jersey Gastroenterological Soc., 1332
Orthopaedic Soc., 1140
New Mexico Health Found., 1240
M. Soc., 1240
Soc. for Crippled Children, 1240
New Orleans Graduate M. Assembly, 662
New York Acad. of Med., 43, 206, 1240
City Department of Health, 485, 856
City Department of Hosps., 266
Fund for Children, Inc., 485
M. Soc. of the State of, 42, 568, 659, 1053
Roentgen Soc., 1429
State A. of Public Health Laboratories, 659
State Coordinating Council of Poliomyelitis, 1517
State Department of Health, 42, 384, 568, 659, 948, 1053, 1140, 1517
State Department of Mental Hygiene, 266
State Soc. of Anesthesiologists, 484
Tuberculosis and Health A., 43, 205
North Carolina M. Soc., 384
Obstetrics and Gynecology Soc., 384
Northampton County (Pa.) M. A., 43
Northeastern New York Radiological Soc., 738
Northern New Jersey, Acad. of Med. of, 1140
Northern Rocky Mountain Ski A., 42
Nuclear Instrument and Chemical Corporation, 1601
Oberlin Men's Scholarship Comm., 1054
Ogden (Utah) S. Soc., 267
Ohio State Archaeological and Historical Soc., 384
State M. A., 485
State Radiological Soc., 43
Tuberculosis and Health A., 44
Oklahoma M. Research Found., 739
M. Research Inst. and Hosp., 739
Rheumatism Soc., 206
State M. A., 948
Orange County (N. Y.) M. Soc., 266
Oregon Health Council, 1518
Organization of Am. States, 741
Pan-Am. Cong. Against Tuberculosis, 857
Cong. on M. Education, 44
Pan Am. Sanitary Bureau, 661, 741

Societies and Other Organizations—Continued
Pennsylvania Acad. of General Practice, 43, 1140
Acad. of Ophthalmology and Otolaryngology, 739
Allergy A., 266
M. Soc. of the State of, 948, 1429
Psychiatric Soc., 1518
Radiological Soc., 43, 739
Southeastern, Heart A. of, 1518
Pfizer, Charles, & Co., Inc., 658
Philadelphia, Coll. of Phys. of, 1139
County M. Soc., 385, 948
Heart A., 1518
Laennec Soc. of, 1054
Philippine M. A. in America, 1603
Pinel Found, Inc., 740
Planned Parenthood Federation of America, 659
Playtex Park Research Inst., 265
Polk County (Ia.) M. Soc., 483
Postgraduate Conf. in Obstetrics and Gynecology, 1516
M. Assembly of South Texas, 740
Public Health Research Inst. of the City of New York, Inc., 856
Quebec, Department of Health of the Province of, 570
Radio Corporation of America, 1516
Radium Chemical Company, 568
Reading (Pa.) Eye, Ear, Nose and Throat Soc., 1140
Reno S. Soc., 1332
Research Found., 1142
Found. of State University of New York, 205
Rhode Island M. Soc., 486
Rochester Acad. of Med., 856
Rockefeller Found., 267, 948, 949
Inst. for M. Research, 1429
Rocky Mountain Cancer Conf., 855
Mountain Radiological Soc., 1333
Rotary Internat., 1332
Royal Coll. of Phys., 1331
Soc. of Med., 570
Runyon, Damon, Memorial Fund for Cancer Research, 1140
St. Clair County (Mich.) M. Soc., 265
St. Louis, Greater, General Practitioners Study Club of, 1517
San Francisco M. Soc., 383, 1601
San Juan (Colo.) M. Soc., 1331
Schaefer Comm. to Study State (Ill.) Government, 204
Searle, G. D., and Company, 946
Sharp & Dohme, Inc., 385, 1241, 1430
Smith, Ferris and Florence, Found. for Plastic S. Research, 739
Smith, Kline and French Laboratories, 43, 1516
Snyder, H. L., Memorial Research Found., 44
Société Internationale de Chirugie Orthopédique et de Traumatologie, 44
Soc. for Biological Research, 43
for Investigative Dermatology, 206, 857
for Pediatric Research, 1142
for the Study of Sterility, 207
of Am. Bacteriologists, 658
of Biological Psychiatry, 486
of Biology of Santiago, Chile, 1430
of Genito-Urinary Surgs., 1139
of M. Jurisprudence, 484, 856
of M. Officers of Health, 43
Solomon, Dr. Jerome D., Memorial Research Found., 1239
South Carolina M. A., 266, 856, 1240
South Dakota State Board of M. and Osteopathic Examiners, 1430
State M. A., 385, 1054
Southern California Soc. of Gastroenterology, 658
M. A., 264, 1517
Soc. of Anesthesiologists, 661
S. A., 1517
Southwestern S. Cong., 1602
Space Med. Soc., 741
Spanish Soc. of Rheumatism, 1241
Student Am. M. A., W. Va. Chapter, 1430
Suffolk County (N. Y.) M. Soc., 1053
Sugar Research Found., 740
Swanberg M. Found., 658
Swift and Company, 946
Taylor County (W. Va.) M. Soc., 43
Tennessee Hearing and Speech Found., 1430
State M. A., 1141
Texas Acad. of General Practice, 1430
State Department of Health, 1332
State M. A. of, 264, 1054
Undergraduate Research Soc. of Hahnemann M. Coll., 266
Unitarian Service Comm., 570
United Air Lines, 569
Nations, 1053, 1241
Nations Internat. Children's Emergency Fund, 570, 662, 857
U. S. Department of State, 1430
Food and Drug Administration, 1055, 1432
Public Health Service, 44, 384, 385, 567, 568, 569, 659, 737, 740, 741, 948, 949, 1240, 1332, 1431
Spanish-Am. War Veterans, 42
Upper Peninsula M. Soc., 484
Utah Board of Health, 660
State M. A., 1602
Utica (N. Y.) Acad. of Med., 42
Vermont Bar A., 740
State M. Soc., 267, 740
Viking Fund of New York, 264
Virginia Department of Public Health, 385
Hearing Found., 740
M. Soc. of, 568, 740
Tuberculosis Found., 385
Univ. of, M. Alumni A., 385
Vocational Rehabilitation Inst., 1140
Wagon-Lits-Cook, 1432
Washington State Department of Health, 267
Weirton Steel Company, 568
Werthan Found., 206
West Virginia Acad. of Ophthalmology and Otolaryngology, 948
Department of Education, 1240
Diabetes A., 660
Heart A., 660
Public Health A., 948
Soc. of Anesthesiologists, 43
State Board of Health, 1141
State Health Department, 385, 1054, 1240
State M. A., 43, 568, 948, 1141, 1430
Westchester (N. Y.), M. Soc. of the County of, 738
Western Inst. on Epilepsy, 569
Wheeling (W. Va.) Soc. for Crippled Children, 857
Wilkins Memorial Library Fund, 483
Winthrop-Stearns, Inc., 384
Wisconsin State Department of Public Welfare, 1430
Woman's Auxiliaries: Arkansas, 383; Colorado, 1601; Hawaii Territorial, 44; Kansas, 42; King County (Wash.), 206; Los Angeles County, 204; Maine, 856; Montana, 1602; Upper Peninsula, 484; Wyoming, 44.
Working Conf. on School Health, 1240
World Cong. (5th) of the Internat. Soc. for the Welfare of Cripples, 1431
Health Assembly, 264
Health Organization, 568, 570, 661, 662, 740, 857, 949, 1053, 1055, 1141, 1240, 1241, 1333, 1519
M. A., 661, 740
Wyeth, Incorporated, 661
Wyoming State Department of Health, 44
State M. Soc., 44
Yellowstone Valley (Mont.) M. Soc., 42

T

TB I-698: See Amithiozone
TEM: See Triethylene Melamine
TABES DORSALIS
treatment of gastric crises, 1175
TACHYCARDIA
treatment, procaine amide intravenously, [Miller & others] *1004
ventricular, pronestyl effective after quinidine fails, [Irving & Cutts] *1282
TALCUM
in pericardial cavity for coronary occlusion, 768
TALKING: See Speaker; Speech
TALLNESS: See Body height
TANNIN: See Acid, tannic
TANTALUM
mesh in eventration of diaphragm, [Monahan] 1076—ab
plate in skull, electric convulsion therapy with, [Osmond] 1167—ab
TAPEWORM INFECTION
cysticercus bovis in cattle and beef tapeworm in man, [Griffiths] 682—ab
TARSUS
anomalies and peroneal spastic flatfoot, [Webster & Roberts] *1099
TASTE
foul, before spells of unconsciousness, 768
loss of sense of, 298; 1272
salty, persistent, 689
TATTOOING
of cornea to restore eye color, [Pickrell] 1350—ab
TAX: See also Medicolegal Abstracts at end of letter M
income, A.M.A. resolution on Income Tax Exemption, 838
income, deduct contributions to American Medical Education Foundation from, 655—E
income, deductions for medical expenses, 932
TEACHERS
visual acuity, (reply) [Foote] 510
TEACHING: See Education, Medical; Schools
TECHNOLOGISTS
schools for, approved by A.M.A. and American Society of Clinical Pathologists, *185; 201—E
TEETH: See also Dentifrices; Dentistry; Jaws
abscessed, 508
caries and milk-free diet, 415
caries, dentifrice containing fluoride, 1176
caries, fluoridation of water; (Kansas) 41; 607; (Nebraska) 856
hypoplasias in congenital syphilis, [Beecher] 1075—ab
TELANGIECTASIA
spider nevi, 879
TELEVISION
A.M.A. Board of Trustees action on, 1328
Annual Televised Postgraduate Conference in Obstetrics and Gynecology (3rd) Illinois, 1516
experimental production packets, 479—E
manual available from A.M.A. Bureau of Health Education, 479—E
programs, danger of radiation absorption from viewing? 1456
slimming by, England, 863
tele-clinics, Wyeth, Inc., 661
worker; low sperm count in, 1546
TEMPERATURE: See also Cold; Heat; Weather
sedimentation reaction and, in gastric ulcer, [Mathisen] 761—ab
TEMPERATURE, BODY: See also Fever; Thermometers
during anesthesia in infants and children, [Bigler & McQuiston] *551
intracardiac and rectal temperature, [Eichna] 1346—ab
low, hypothermia induced for heart surgery, [Boerema] 1614—ab
low, life at: cause of death from exposure to cold, [Lutz] 407—ab
thermal gradients in vascular system, 1137—E
TENDONS
peritendinitis calcarea, [Braaten] 761—ab
supraspinatus tendinitis; roentgen therapy, [Steen] 400—ab
tenosynovitis, 1458
TENNESSEE Hearing and Speech Foundation: See Foundations
TENOSYNOVITIS: See Tendons
TENSIOGRAPHY of auricle and ventricle, Italy, 276
TERATOMA
retroperitoneal, consisting of twin features in newborn infant, [Gross] 1161—ab
TERMINOLOGY: See also "Words and Phrases" under Medicolegal Abstracts at end of letter M
atherosclerosis and arteriosclerosis contrasted, 878
eponyms: Adie's syndrome, [Wartenberg] 1152—C
hysteria, [Aisenson] 1526—C
STANDARD NOMENCLATURE OF DISEASES AND OPERATIONS, its adoption by hospitals, *123
TERRAMYCIN HYDROCHLORIDE
antibacterial action, [Sayer] 752—ab
effect on intestinal flora, [Dearing] 287—ab
N.N.R. (description) 254; (Prizer) 255
treatment of acne vulgaris, [Andrews & others] *1107
treatment of whooping cough, [Booher] 1161—ab
treatment, orally, for gonorrhea, [Beinfield] 1349—ab
tuberculostatic activity, [Hobby] 1071—ab
TESTIS: See also Gonads; Spermatozoa
excision, primary hypogonadism from self-mutilation, 1458
Hormone: See Androgens
pseudo-orchitis in children, [Fernandez] 1170—ab
undescended, therapy, Italy, 747
TESTOSTERONE: See Androgens
TETANUS
Antitoxin: See also Tetanus treatment
antitoxin, paralysis from, [Davis] 405—ab
immunization against, 978
manure on football field as possible source of, 690
spores used for testing antiseptics, (Council article) [Brewer & McLaughlin] *729
toxoid and diphtheria toxoid combined (alum precipitated), N.N.R., (Pitman-Moore; Squibb) 1134
treatment, large doses of refined antitoxin globulin, [Verhagen] 1357—ab
treatment, mephenesin orally, [Boles & Smith] *1296
treatment, modified Boschi's, [Bravo Mateo] 1269—ab
TETANY
postoperative, graft cultivated embryonic parathyroid tissue in, [Kooreman] 682—ab
TETRACAINE (pontocaine)
dermatitis from local anesthetics, [Lane & Lulkart] *718
TETRAETHYLAMMONIUM
bromide, untoward reactions to tests for pheochromocytoma, [Bierman] 1348—ab
chloride, name recognized by Council, 927
comparative effects in producing vasodilation, [Reedy] 678—ab
TETRAETHYLTHIURAMDISULFIDE (antabuse)
treatment in U.S. Army, [Brown] 758—ab
treatment of alcoholism, [Wexberg] 1347—ab
treatment of alcoholism, cardiovascular complications, [Macklin & others] *1377
treatment of alcoholism, personality structure in relation to, [Dale & Ebaugh] *314
TETRALOGY of Fallot: See Heart anomalies
TEXAS
Academy of General Practice, 1430
Medical Center expands neuropsychiatric service, 206

THEELIN: See Estrone
THEOPHYLLINE
treatment (aerosol) of dyspnea in cardiac patient, [Monrardini] 409—ab
THEOPHYLLINE ETHLYENEDIAMINE: See Aminophylline
THEPHORIN: See Phenindamine Tartrate
THERAPEUTICS: See also Blood Transfusion; Drugs; Occupational Therapy; Roentgen Therapy; Self-medication; under names of specific diseases and substances
radioactive isotopes in, (Council article), [Kelsey] *1131
THERA-PLAST, 817
THERMOMETERS
clinical, thermo-electric, [Bigler & McQuiston] *552
THERMOTHERAPY: See Diathermy; Heat, therapeutic use
THIAMINE
phosphoric esters of, in diabetes mellitus, Colombia, 672
THIAMINE HYDROCHLORIDE
concentrate not cause of osteoarthritis of spine, 1366
U.S.P., N.N.R., (Physicians' Drug) 1134
THIOCYANATES
level, estimation of, 77
THIOMERIN: See Mercaptomerin
THIOSEMICARBAZONE: See also Amithiozone
treatment of tuberculosis, [Shane] 1265—ab
THIOURACIL
Methyl-: See Methylthiouracil
Propyl-: See Propylthiouracil
THIRST
mechanism of, 1580—ab
THOMPSON Lecture: See Lectures
THORACENTESIS
blood donor set used for [Beech] *1597
THORACOPLASTY: See Thorax surgery
THORACOTOMY: See Thorax surgery
THORAX: See also Hemopneumothorax; Hydrothorax; Pneumothorax; Pneumothorax, Artificial; Ribs; Sternum
Chest, Puncture of: See Thoracentesis
chest x-ray, county survey, Arizona, 855
chest x-ray surveys (mass) for tuberculosis, [Lönnerblad] 967—ab
chest x-rays, value of total population, 928—E
circumscribed intrathoracic lesions, treatment, [Harrington] 963—ab
oxygen administration when intratracheal tube fails with chest open, [Brantigan] 1534—ab
pain in chest following inhalation of cold air, 508
pain (paracardiac), new sign of silicosis, [Maulini] 1445—ab
surgery, closed thoracotomy drainage for idiopathic spontaneous pneumothorax, [Hughes & others] *244
surgery, prophylactic streptomycin in thoracoplasty operations, [Mann] 1172—ab
surgery, residual cavities after thoracoplasty, [Bérard] 291—ab
surgery, Resistive Exercises in Physical Therapy for Thoracoplasty, (film review) 750
surgery, thoracotomy for spontaneous hemopneumothorax, [Beatty] 1345—ab
THORIUM
X treatment of skin lesions, [Sher] 66—ab
THORNE Memorial Collection, Conn., 204
THORNWALDT'S DISEASE
bleeding from nasopharynx, 1363
THREADWORMS: See Oxyuriasis
THROAT: See also Larynx; Nasopharynx; Otorhinolaryngology; Pharynx; Tonsils
cultures for hemolytic streptococcus, effect of penicillin in rheumatic fever prevention, [Massell & others] *1469
sore, hemolytic streptococcic, cortisone for poststreptococcic state, [Doerner & others] *641
sore, in general practice, [Landsman] 503—ab
THROMBIN: See Blood prothrombin
THROMBOEMBOLISM: See Thrombosis
THROMBOPHLEBITIS: See also Phlebitis
greatest interval reported between embolism and, 1619
of one leg then the other; treatment, 878
sensitized clotting time, simple bedside test, [de Takats] *1370
THROMBOSIS: See also Embolism; Thrombophlebitis
cerebral, stellate ganglion block in, [Sussman] 869—ab
complications of cortisone and ACTH treatment, [Coste] 1617—ab
coronary, following shock, [Davis] 1343—ab
coronary, hiccups in, relieved with phrenic crush, [Rubin & others] *1418
diagnostic drifts, deceptions and common misses, [Neal] *539
"effort"; of axillary vein with pulmonary embolism, [Barnett & Levitt] *1412
greatest interval reported between thrombophlebitis and, 1619
of aortic bifurcation, vascular graft in, [Dufourmentel] 504—ab
THROMBOSIS—Continued
prevention of thromboembolism, [Loewe] 869—ab; [Thies] 1173—ab
sensitized clotting time, simple bedside test, [de Takats] *1370
thromboembolism, in children, [Decamp] 1530—ab
treatment, dicumarol alone or combined with heparin, [Armas Cruz] 409—ab
treatment, ligation and heparin in thromboembolic disease, [Ravdin] 966—ab
treatment of thromboembolism, [Thies] 1173—ab
THRUSH: See Moniliasis
THYMECTOMY: See Thymus excision
THYMUS
excision and induced leukemia, [Law] 404—ab
THYROID: See also Goiter; Goiter, Toxic; Parathyroid
cancers, experimental, 1147
dysfunction, in term pregnancies after abortion, [Jones & Delfs] *1212
Excision: See Thyroidectomy
Hyperthyroidism: See Hyperthyroidism
Hypothyroidism: See Hypothyroidism
treatment, heart in myxedema during, [Capriglione] 67—ab
tumors, adenoma, tuberculosis in, [Frasson] 1079—ab
tumors, after injecting radioactive iodine, [Goldberg] 1350—ab
tumors, radioactive iodine for, [Crile] 753—ab
THYROIDECTOMY
corneal dystrophy and cataract after, [Pau] 970—ab
in mother; no relation to mongolism in child, 1178
postoperative defluvium, 300
prognosis of exophthalmos after, 508
THYROTOXICOSIS: See Goiter, Toxic
TIBIONE: See Amithiozone
TICKS
Fever from: See Rocky Mountain Spotted Fever
TIETZE'S DISEASE
costal chondritis, [Deane] 1356—ab
TINEA
capitis (ringworm of scalp), [Finn] 290—ab
TINGLING
of fingers and numbness, 980
of soles of feet, 879
TINNITUS
buzzing in ear, 1456
clicking in ears, 607
resulting from acoustic trauma, 1178
TISSUES: See also Skin; under names of specific organs
culture to differentiate morphologically identical cells, [Sano] 1609—ab
gas in, differential diagnosis, [Sättler] 1164—ab
substances used to stimulate fibrous tissue, 509; (reply: use of dicetyl phosphate) [Berman] 1546
TITANIUM
toxicity, 1175
TOBACCO
cigaret smoking in asthma patient, 1087
nonthrombocytopenic purpura caused by mentholated cigarets, [Highstein & Zeligman] *816
smoking and physical performance, [Karpovich] 1346—ab
smoking, relation to coronary disease, [Gertler & others] *1292
TODAY'S HEALTH: See American Medical Association
TOES
Abnormalities: See Arachnodactyly
TOLEDO
Academy of Medicine of: See Academy
TOLSEROL: See Mephenesin
TOMLINSON, PERCY, death, England, 662
TONAMIC Hearing Aid, Model 50, 1325
TONSILLECTOMY
effects on children, Denmark, 1149
failure of, [Hyde] *1478
in children, far-reaching impression on, [Barhash] *1587
poliomyelitis and, [Miller] 59—ab
TONSILLITIS: See Tonsils, Infected
TONSILS
Excision: See Tonsillectomy
infected, antibiotics effect on streptococcic tonsillitis, [Brink] 752—ab
infected, cortisone and acute streptococcic infections, [Hahn] 1074—ab
infected, roentgen irradiation in, [de Jong] 1357—ab
infected, sulfonamides treatment of tonsillitis, [MacDonald] 503—ab
TOOTH: See Teeth
TOOTHPASTES: Toothpowders: See Dentifrices
TOPECTOMY: See Brain surgery
TORULOSIS: See Cryptococcosis
TOXEMIA
in Pregnancy: See Pregnancy
streptomycin, vestibular function after, [Chase] 870—ab
treatment, intravenous procaine hydrochloride as diuretic in, [Serwer] 65—ab
TOXIC Goiter: See Goiter, Toxic
TOXICOLOGY: See Poisoning
TOXINS: See Liver; Rhus
TOXOID: See Diphtheria; Tetanus
TOXOPLASMOSIS
acquired, cases of strongly positive toxoplasma reactions, [Slim] 1172—ab
clinical and postmortem observations [Neiditsch] 1452—ab
in offspring of infected mice, [Cowen] 1347—ab
laboratory diagnosis and epidemiology, [Gard] 1169—ab
pathological anatomy, [Wahlgren] 1169—ab
symptoms, [Magnusson] 1169—ab
treatment, sulfoxone and glucosulfone,[Cross] 1350—ab
TRACHEA
compression of in vascular anomalies, [Gross] 215—ab
Fistula: See Fistula
Intravenous Anesthesia and Tracheal Intubation, (film review) 281
tuberculous lesions, streptomycin for, [Marshall] 291—ab
when intratracheal tube fails with chest open; give oxygen, [Brantigan] 1534—ab
TRACHEOTOMY
to prevent pulmonary complications in postoperative and severely debilitated patients, [Atkins] *241
TRACTION
device for fractures of forearm, [Wichern & Bacon] *1233
TRADE
Hazard; Poisoning etc: See Industrial Diseases; Industrial Health, etc.
Unions: See Industrial Trade Unions
TRAFFIC Accidents: See Automobiles
TRAINING: See Education, Medical; Nurses and Nursing; Technologists
TRANSFUSION: See Blood Transfusion
TRANSORBITAL Leukotomy; Lobotomy: See Brain surgery
TRANSORBITOME, [Moore & others] *326
TRANSPLANTATION: See also Kidneys; Parathyroid; Skin grafting
fate of homografts, 717—ab
TRANSPORTATION: See Automobiles; Aviation; Ships; Travel
effect on severity of acute poliomyelitis, [Brahdy & Katz] *772
of Sick and Wounded: See Ambulance
TRAUMA: See also Accidents; Burns; Fractures; Korean War; Wounds; under specific organs as Eyes; Medicolegal Abstracts at end of letter M
fatal acute boxing injuries, [Jokl] 67—ab
fatal injuries in competitive sports, [Gonzales] *1506
Industrial: See Industrial Accidents
paralytic poliomyelitis after injury, [Harrington] 1357—ab
relapsing febrile nodular nonsuppurative panniculitis (Weber-Christian disease), [Elsaman & Schneider] *1417
rheumatoid arthritis of traumatic origin, 55
TRAVEL: See also Transportation
typhus immunization advisable before trip to Caribbean islands, 1087
TREATMENT: See Therapeutics
TREES, Spraying: See Insecticides
TRENCH Mouth: See Angina, Vincent's
TREPHINING: See Brain surgery
TREPONEMA
pallidum Infection: See Syphilis
pertenue Infection: See Yaws
TREPONEMATOSIS: See Yaws
TRICHIASIS: See Eyelashes
TRICHINOSIS
incidence in San Francisco, 1950; garbage-fed hogs; safety of ready-to-serve pork products; teach public to cook pork, [Beard] *331
outbreak, Connecticut, 567
TRICHOMONAS
excess gas in intestine, 691
vaginalis, tyrothricin for [Sánchez Ibanez] 1083—ab
TRICHOPHYTIN
diagnosis and treatment of mycoses, [Mitchell] *541
TRICHOPHYTON Infection: See Dermatophytosis
TRICHOTILLOMANIA
in child 3½ years old, 417
TRICUSPID VALVE
atresia, congenital, [Sommers] 59—ab; [Abrams] 1612—ab
TRIETHYLENE MELAMINE (TEM)
nitrogen mustard congener in cancer chemotherapy, 480—E
treatment of neoplastic diseases, [Karnofsky] 960—ab
treatment, uremia complicating leukemia chemotherapy, [Kravitz & others] *1595
TRIPELENNAMINE HYROCHLORIDE (pyribenzamine)
cream, treatment of Rhus dermatitis, [Hoagland & others] *612

TRIPLETS
retrolental fibroplasia in, 1363
TRITON
-xylene-water, DDT in, for eradication of malaria, 1599—E
TROMEXAN Ethyl Acetate: See Ethyl Biscoumacetate
TROOPS: See Armed Forces; Army, U.S.; Korean War; Medical Preparedness
TROPICAL DISEASE: See Leishmaniasis; Malaria; Schistosomiasis; Yellow Fever
TROPICAL MEDICINE
National Congress of (8th), Italy, 212
TROPICAL TYPHUS: See Tsutsugamushi Disease
TROPICAL ULCER: See Leishmaniasis
TRUDEAU Medal: See Prizes
School of Tuberculosis, 37th session of, 661
TRUSTEES: See American Medical Association Board of Trustees
TRYPANOSOMIASIS
campaign against sleeping sickness in Belgian Congo, 1060
TSUTSUGAMUSHI DISEASE
U.S. Army expedition to Malaya, 862
TUBE: See also Catheters; Duodenal Tube feeding advisable in poliomyelitis, 297
Intratracheal: See Trachea
TUBERCLE BACILLUS
in intermittent contact with streptomycin, [Bernard] 1169—ab
resistance to streptomycin, [Adcock] 60—ab; [Ferebee] 681—ab
resistance to streptomycin and PAS, [Lewis] 1531—ab
resistant-to-streptomycin patients treated with neomycin, [Carr] 1071—ab
static activity of terramycin, [Hobby] 1071—ab
TUBERCULIN
converior, prognosis for, Norway, 1247
sensitivity during streptomycin therapy, [Leitner] 218—ab
test-negative tuberculosis, [Mascher] 1256—ab
testing, 766
TUBERCULOSIS: See also Tuberculosis of Lung; under names of specific diseases and organs
case finding, county x-ray survey, Arizona, 855
case finding, mass chest surveys, [Lönnerblad] 967—ab
case finding, value of total population x-ray survey, 928—E
control, anti-tuberculosis center opened in Istanbul, Turkey, 662
control, Pan-American Congress against Tuberculosis, 857
control, Rodney (film review), 867
control, Swiss Antituberculosis Association, 577
Foundation of Virginia receives $200,000 donation, 385
hematogenous, punch biopsy of liver to detect, [Cohen & Giges] *1416
histoplasmosis and coccidioidomycosis, [Beadenkopf & Loosli] *621
hospital and sanatorium personnel, tuberculosis in, [Childress] *1188
hospital, first state-owned, Illinois, 383
hospitals, statistics, *115
immunity in, [Myers] *1492
immunization, BCG, [Scholer] 1358—ab; 1515—E
immunization, BCG allergy, duration, Norway, 213
immunization, BCG by mouth, Norway, 212
immunization, BCG, compulsory, Norway, 494
immunization, BCG, evaluated, [Myers] *1492
immunization, BCG in children, [Cattaneo] 1264—ab
immunization, BCG, is it entirely harmless? [Beyer] 408—ab
immunization, BCG, pathologic manifestation in persons vaccinated, [Mellettier] 409—ab
immunization, BCG, priority for, Brazil, 578
immunization, BCG routine of newborn, [Pigeaud] 1166—ab
immunization, BCG vaccine distributed by Research Foundation, Chicago, 1142
immunization protection, loss of, after cortisone treatment, [Solotorovsky] 681—ab
in children, paraaminosalicylic acid in, [Lesné] 409—ab
in infants born of tuberculous mothers, [Ratner] 965—ab
in nurses and attendants, [Childress] *1188
in thyroid adenoma, [Frasson] 1079—ab
in Turkey, 54
incidence, urban and rural, Paris, 393
inoculation by skin in workers, [Grady] 1257—ab
mortality, marked decrease in, [Myers] *1499
mortality studies, Denmark, 749
mortality, United States, 949
National Tuberculosis Association (secretary retires) 207; (service workers' course conducted by) 1518
neuropsychosis in children of parents with, [Schachter] 762—ab
rheumatic nodules in, [Valdés-Dapena] *1566
TUBERCULOSIS—Continued
transmission, house to house spread, [Webb] 1615—ab
treatment, medical care of tuberculous veteran, continuing problem, [Barnwell] *1372
treatment, neomycin, in streptomycin resistant tubercle bacillus patients, [Carr] 1071—ab
treatment, streptomycin plus p-aminosalicylic acid, [Tempel] 962—ab
treatment, streptomycin, resistance of tubercle bacilli isolated from patients, [Ferebee] 681—ab
treatment, streptomycin, tuberculin sensitivity during, [Leitner] 218—ab
Trudeau School of, 37th session, 661
Vaccine, BCG: See Tuberculosis, immunization
vaccine, irradiated, 931—E
workers, institute for, 385
TUBERCULOSIS OF LUNG (pulmonary tuberculosis)
bronchi in, [Laff & others] *778; [Jones] 1070—ab; [Veeneklaas] 1357—ab
complications: sickle cell anemia and, [Herrera Cabral] 292—ab
in children, bronchial involvement in [Laff & others] *778
in coal miners, [Mann] 1172—ab
Löffler's syndrome, in twins, [Shechter & Graub] *1420
surgical treatment, extrapleural pneumothorax in, [Cutler] 964—ab
surgical treatment, lung resection, [Eerland] 874—ab
surgical treatment, PAS and streptomycin in surgical treatment of, [Birath] 1168—ab
surgical treatment, residual cavities after thoracoplasty, [Bérard] 291—ab
surgical treatment, segmental resection of lungs, [Conklin & Westerberg] *633
treatment, amithiozone, [Livingstone] 410—ab; [Martini] 759—ab; [Shane] 1265—ab
treatment, artificial pneumothorax, evaluation, [Porrata-Armstrong] 1072—ab
treatment, calcium salt of PAS, [Press] 504—ab
treatment, maintaining collapse with mineral oil; predispose to cancer? 1366
treatment, pneumoperitoneum, [Thomassen] 972—ab
treatment, potassium iodide plus streptomycin, [Woody] 1258—ab
treatment, streptomycin, [Durieu] 67—ab; [Raeffiger] 68—ab; [Matiei] 972—ab
treatment, streptomycin p-aminosalicylate and streptomycin resistant tubercle bacilli, [Miller] 60—ab
treatment, streptomycin, bacteriologic dependence on, [Dufourt] 1167—ab
treatment, streptomycin, intermittently, [James] 962—ab
treatment, streptomycin plus pneumoperitoneum, [Brock] 1259—ab
treatment, streptomycin toxemia, vestibular function after, [Chase] 870—ab
treatment, thiosemicarbazones, [Shane] 1265—ab
tuberculin-negative, [Mascher] 1256—ab
d-TUBOCURARINE
death following syncurine and, [Zimmerman] 864—C; [Lieberman] 1608—C
TULIP BULBS
goiter relation to, [Greenwald] 1248—C
TUMORS: See also under names of specific organs and types of tumors
Alveolar Cell: See Lungs, tumors
basal cell, [Wallace] 1447—ab
Chromaffin Cell: See Pheochromocytoma
Giant Cell: See Granuloma
Institute, new head of, 483
Malignant: See Cancer; Sarcoma
Polypous: See Polyps
seminar (annual), Indiana, 205
TURKEY
Eggs: See Eggs
TWINS
heredity of epilepsy as told by, [Lennox] *529; (correction) 662
Löffler's syndrome in, [Shechter & Graub] *1420
mongolism in one twin and not in other, 1271
superfetation or defective ova, [Salfelder] 69—ab
twin fetuses in fetu, [Gross] 1161—ab
TWO-STEP Test (Master): See Heart function tests
TYMPANITES: See Flatulence
TYPHOID: See also Paratyphoid
in soldiers in Korean War, [Hume] *1308
treatment, aureomycin and chloramphenicol, [Höring] 290—ab
treatment, chloramphenicol, [Marie] 702—ab; [Greengard] 1342—ab
treatment, chloramphenicol, complications, [Furbetta] 1453—ab
treatment, chloramphenicol, in children, [Meneghello] 408—ab
treatment in pregnancy with chloramphenicol, [Stevenson & others] *1190
vaccination, 1087
TYPHUS
immunization advisable before trip to Caribbean islands, 1087
in soldiers in Korean War, [Hume] *1308
murine, [Hedden] 1350—ab
Scrub or Tropical: See Tsutsugamushi Disease
TYROTHRICIN
treatment of trichomoniasis vaginalis, [Sánchez Ibanez] 1083—ab
TZANCK METHOD
diagnosis by cytologic smears, [Black & others] *1410

U

UN: See United Nations
ULCERS: See also Abscess; Colitis, ulcerative; Decubitus; Peptic Ulcer
Curling's, 107—ab
treatment, human placenta in, Colombia, 56
treatment, pedicle graft for ulcers of lower extremities, [Brummelkamp] 682—ab
Tropical: See Leishmaniasis
ULTRASONICS: See Sound waves
ULTRAVIOLET RAYS
burns of eyes, first aid treatment by physicians, [Knapp] *12
effect of photoflash on vision, 1456
eye injuries in welding from, 417
irradiated tuberculosis vaccine, 931—E
Lamps: See also Sunlamps
lamps, Flurolamp, 1325
radiation, cause of changes in sweating rate after, [Thomson] 684—ab
radiation, dyshidrosis produced by, [Thomson] 684—ab
UMBILICAL CORD
blood, congenital syphilis, (replies) [Moore; Greenhouse; Schamberg; McConahy] 1090
stump and "belly bands" for infants, 298
UNCINARIASIS: See Ancylostomiasis
UNCONSCIOUSNESS: See also Coma
foul taste before spells of, 768
UNDERGRADUATE Work; Students; etc.: See Education, Medical; Schools, Medical; Students; Students, Medical; University
UNDULANT FEVER: See Brucellosis
UNIONS: See Industrial Trade Unions
UNITED NATIONS
International Children's Emergency Fund, aid ends in Greece, 857
medical service in Korean conflict, [Hume] *1307
World Health Organization: See World Health Organization
UNITED STATES: See also American; Federal; National; Medicolegal Abstracts at end of letter M
Air Force: See Aviation, United States Air Force
Armed Forces: See Armed Forces
Army: See Army, U. S.
Atomic Energy Commission: See Atomic Energy
Children's Bureau: See Children
Civil Defense Administration: See Civilian Defense
Congress, Legislation considered by: See Laws and Legislation, federal
Department of Commerce, income of physicians, 1237—E
Department of Defense: See Armed Forces
Government Aid to Medical Schools: See Schools, Medical
government, aid to cooperative and nonprofit health insurance plans, 1427
government, A.M.A. resolutions on proposing greater federal economy, 852
government credentials, licensure on, *357; 360
Government Hospital Building Program: See Hospitals, building; Hospitals, veterans
government, millions for cancer research, 392
Laws and Legislation: See Laws and Legislation, federal
Medical Academy, legislation recommending, 382
Navy: See Navy, U. S.
Public Health Service: See Health, USPHS
Veterans Administration: See Veterans Administration
UNIVERSITY: See also Education, Medical; Schools, Medical; under names of specific universities as Hebrew University; Ohio State University; Wayne University
Associated Universities, Inc., and Brookhaven National Laboratory, 211
of Buffalo, (new center for study of bulbar poliomyelitis) 1517
of California Medical Center, (picture) 737
of Chicago, (2 new hospitals) 737; (research institutes) 946
of Illinois, (awarded grants for research) 737; 946; (instructorship awards) 946; (Illinois Neuropsychiatric Institute transferred to) 1516
of Kansas, (pathology and oncology departments combined) 1428
of Michigan, (memorial research program) 659

UNIVERSITY—Continued
of Nigeria, (Dr. Britton appointed visiting professor to) 1141
of Ottawa, (Faculty of Medicine approved by A.M.A. Council) 1152
of Pittsburgh; new department of biochemistry and nutrition, 486
politics in, Argentina, 1339
Premedical Work: See under Basic Science; Education, Medical, premedical
Students: See Students; Students, Medical
UREA
derivatives, edema after prolonged use of hypnotics, [Krisch] 218—ab
UREIDE of Mesoxalic Acid: See Alloxan
UREMIA
complicating leukemia treated with triethylene melamine, [Kravitz & others] *1595
false positive piperoxan and regitine tests in, [Emlet & others] *1385
treatment by perfusion of isolated intestinal loop, [Twiss & Kolff] *1019
URETERS
bilateral ureteroceles, resect vesical neck in children, [Howard & Buchtel] *1202
congenital obstructive lesions at ureterovesical junction, [Burns & Harvard] *419
URETHRA
Inflammation (nonspecific): See Urethritis
prolapse in young girls, [Moffett & Banks] *1288
substitute ileum for, [Merricks] 1534—ab
transurethral resection for bladder dysfunction in paraplegia, [Bors] *227; *228
tumors, papilloma (recurrent), podophyllin indicated? 1177
URETHRITIS
amicrobic, in men, chloramphenicol for, [Tissot] 972—ab
Reiter's syndrome, ACTH intravenously in, [Mandel & others] *546
URINARY SYSTEM: See also Bladder; Genitourinary System; Kidneys; Ureters; Urethra
anomalies, [Burns & Harvard] *419
calculosis in paraplegia, [Bors] *227; *228
infection, aureomycin in, [Brettler] 971—ab
infection, combined therapy and drug resistance in, [Kimmelman] 1535—ab
infection, polymyxin B and polymyxin E in, [Kagan] 678—ab
infection, terramycin in, [Sayer] 752—ab
infection with penicillium, [Gilliam] 1161—ab
obstructive lesions (congenital), [Burns & Harvard] *419
schistosomiasis, Turkey, 1149
tuberculosis, [Gütgemann] 1164—ab
URINATION: See also Urine, incontinence; Urine, suppression
frequent in siblings, 1364
Inducing: See Diuretics
URINE
alkaptonuria mistaken for diabetes mellitus, [Mauser] *815
diversion of, into intestines or skin, in bladder cancer, [Thomas] 1534—ab
Hormone excreted by Pregnant Women: See Gonadotropins, chorionic
incontinence (stress), physiologic therapy, [Kegel] *915
incontinence, surgical correction, Kelly also Kennedy operation, [Counseller] *27
17-ketosteroids, cortisone effect on, [Wilkins] 500—ab
17-ketosteroids of no value in assessing rate of secretion of cortical hormone in man, 1489—ab
lactosuria and glycosuria in obstetric patients, method for distinguishing between, 691
paper chromatography of in pregnancy and preeclampsia, [Zilliacus] 1082—ab
Porphyrin in: See Porphyria
sediment, smear of in diagnosis of neoplasms, [Harrison] 288—ab
specific gravity, 1088
Sugar in: See Diabetes Mellitus; Glycosuria
suppression from phenindamine tartrate (thephorin), [Uhle & Knoch] *1319
UROGENITAL SYSTEM: See Genitourinary System; Urinary System
UROGRAPHY: See Pyelography
UROLITHIASIS: See Urinary System calculosis
UROLOGY
aspects of rehabilitation in spinal cord injuries, [Bors] *225; [Pollock & others] *1555
International Forum, Spain, 1525
URTICARIA
Giant: See Edema, angioneurotic
UTENSILS: See Cooking and Eating Utensils
UTERUS: See also Placenta
Cancer: See UTERUS CANCER *following*
curettage in spontaneous abortion, when indicated? 417
excision, abnormal lactation, [Foss] 970—ab
excision, lesions of cervical stumps, [Collins] 1071—ab
excision, panhysterectomy for cancer of cervix, [Schmidt] *1310
excision, supracervical hysterectomy and cancer of cervix, [Hendricks] *100
UTERUS—Continued
hemorrhage, cause of maternal death in New York City, [Faison] *1394
hemorrhage, cause of maternal death in rural South, [Ferguson] *1388
hemorrhage, chronic endometritis, [Dumoulin] 1540—ab
Hemorrhage (Functional): See Menstruation
hemorrhage, hormone treatment for bleeding fibroid uterus, 691
intrauterine radium irradiation of corpus carcinoma, [Czech] 1540—ab
Mucosa: See Endometrium
UTERUS CANCER
cervical, and supracervical hysterectomy, [Hendricks] *100
cervical, chronic cystic fibrosis and birth control, 144:1602, Dec. 30, 1950; (replies) [Fitts & Hoffman; Kennedy; Greenhill] 146:78, May 5, 1951
cervical, cytodiagnosis of hematoxylin-eosin-stained smears, Papanicolaou, [Glardini] 217—ab
cervical, growth and spread of [Twombly] 1529—ab
cervical, irradiation treatment, [Schmitz] 1530—ab
cervical, panhysterectomy for, results evaluated, [Schmidt] *1310
diagnosis, detection; biopsy-smear study, [Jones] *1197
diagnosis, Schiller test in early cancer of cervix, 1177
treatment, intrauterine radium irradiation of corpus carcinoma, [Czech] 1540—ab
UVEITIS
2 types of: treatment recommended, 766

V

VACCINATION: See also Immunization; under names of specific diseases as Smallpox
BCG: See Tuberculosis, immunization
encephalomyelitis after, Turkey, 577
VACCINE: See Tuberculosis; Whooping Cough
BCG: See Tuberculosis, immunization
VACUTOME
for skin grafting, [Barker] *1219
VACUUM CLEANER
used for aerosol therapy, [Sheldon & others] *648
VAGECTOMY: See Nerves
VAGINA
posterior colpotomy in ectopic pregnancy, [Draa] 675—ab
VAGINITIS
treatment of moniliasis vulvae, 1176
VAGOTOMY: See Nerves, vagotomy
VALLEY Fever: See Coccidioidomycosis
VAN METER Prize: See Prizes
VARICELLA: See Chickenpox
VARICOSE VEINS
necrobiosis lipoidica, 298
treatment, combination resection-injection, [Birch-Jensen] 1172—ab
treatment with human placenta, Colombia, 56
VARIOLA: See Smallpox
VASCULAR: See Blood Vessels
VASOCONSTRICTOR; VASODILATION: See Vasomotor System
VASOMOTOR SYSTEM
flushing of face and ears, 1272
vasoconstrictor, hormonal cerebral vasopressor substance, 1326—E
vasodilation, comparative effects of ether, alcohol, tetraethylammonium and priscoline in, [Reedy] 678—ab
VASOPRESSIN INJECTION (pitressin)
cardiac accidents following, [Slotnik & Telgland] *1126
cerebral vasopressor substance, 1326—E
VATER'S Ampulla: See Ampulla of Vater
VEGETABLES: See also Peas; Potatoes
Monarch Brand Dietetic Pack, 477
Oil from: See Oil
VEGETATIVE Nervous System: See Nervous System, Sympathetic
VEINS: See also Blood Vessels
axillary, "effort" thrombosis of with pulmonary embolism, [Barnett & Levitt] *1412
Caval: See Vena Cava
dural sinus venography in intracranial disease, [Ray] 285—ab
femoral, bilateral, ligation to prevent pulmonary embolism, [Erb] 1613—ab
Inflammation: See Phlebitis; Thrombophlebitis
Injection into: See Injections, intravenous
ligation; concurrent with ligation of artery, 1425—E
Portal: See Portal Vein
Transfusion via: See Blood Transfusion
Varicose: See Varicose Veins
VENA CAVA
inferior, anomaly of, fatality after ligation, [Effler & others] *1321
inferior, ligation in irreducible cardiac decompensation, [Donzelot] 1164—ab
jaundice in acute subleukemic lymphocytic leukemia, [Bower & Coca-Mir] *987
VENA CAVA—Continued
partial excision, [Collins] 65—ab
portacaval anastomosis for portal hypertension, [Auvert] 684—ab
VENEREAL DISEASE: See also Gonorrhea; Syphilis
clinic closed, New York, 43
Clinics, Directory of, 1147
control, A.M.A. position on examination and certification of prostitutes, 564—E
factors in blindness in Ohio, [Freeble & Donohue] *1500
International Union against, draws up postulates on transmission of congenital syphilis, 259—E
VENTILATION
Hyperventilation: See Respiration
VENTRICULAR TACHYCARDIA: See Tachycardia
VENTRICULOSTOMY: See Brain surgery
VERILOID
hypotensive action, [Kauntze] 1080—ab
VERRUCA
inclusion bodies in warts, [Lyell] 1354—ab
plantar, resurfacing foot by plastic surgery, [Brown & Fryer] *628
VERTEBRAE: See Spine
VERTIGO
aural, decompressive trephining of subarachnoidal cisterns for, [Piquet] 292—ab
hypoglycemic tendency with, [Harrill] 678—ab
VESICATION: See Blister
VETERANS: See also American Legion
benefits for Korean war veterans, 482
beriberi heart in, Ia., [Gutenkauf] 871—ab
malaria in Korean war veterans, 1523; 1602
Medical Care: See also Hospitals, veterans
medical care, chiropractors in VA, [Humphrey] 280—C
medical care of tuberculous veteran, continuing problem, [Barnwell] *1372
service for those who stutter, 667
spinal cord and cauda equina injuries in, management, [Pollock] *1551
"wheelchair" homes for, 1436
VETERANS ADMINISTRATION
activities, A.M.A. Board of Trustees report on, 939
consultants, 2 appointed, 1147
Hospitals under control of: See Hospitals, veterans
National Advisory Committee affiliated with, 667
physicians wanted for, 1147
presumption of service connected disability, 382; 1427
VETERINARIAN
danger of contracting rabies from operating on rabid dog or cow? 1175
VINCENT'S Infection: See Angina, Vincent's
VINEGAR
eel in sputum, [De May & others] *645
VINYLIDENE
chloride resins, 768
VIOMYCIN
absorption and excretion, [Werner] 681—ab
VIRGINIA, Tuberculosis Foundation of: See Foundations
VIRILISM: See Hermaphroditism
VIRUS: See also Influenza; Poliomyelitis
amicrobic urethritis in men, [Tissot] 972—ab
Coxsackie: See Coxsackie Disease
cortisone concentration in eggs and, [Kilbourne] 215—ab
course in techniques in virology, 483
disease, cytologic smears in diagnosis, [Blank & others] *1410
Hepatitis: See Liver Inflammation
mumps virus in human milk and in milk of infected monkey, [Kilham] *1231
VISAMMIN: See Khellin
VISCERA
lesions in scleroderma, [Gil] 1257—ab
VISION; See also Eyes; Glasses; Ophthalmology
acuity of teacher, (reply) [Foote] 510
Color: See Color Blindness
course in sight saving and Braille, District of Columbia, 483
effect of photoflash on, 1456
industrial, conference on, Indiana, 265
Loss of: See Blindness
problems of supersonic speeds, [Byrnes] 675—ab
See Better: Healthy Eyes, (film review) 58
testing, screening school children for errors; use of Massachusetts test and Snellen test, 1364
VISUAL EDUCATION: See Moving Pictures
VITAL CAPACITY
in poliomyelitis, measurement of, [Plum & Wolff] *442
VITAL STATISTICS
birth rates (world), 569
Death Certificates: See Death
Death Rate: See also Infants, mortality; Life expectancy; Maternity, mortality; under names of specific diseases as Tuberculosis
death rates decline in many countries, 1055
death rates from detectable chronic diseases, United States, 1948, [Levin] *1398
death rates, male and female, England, 863
filmstrip on, 1427

VITAMINS
bacterial (new), 1327—E
concentrate not cause of osteoarthritis of spine, 1366
in frozen orange juice concentrate, (A.M.A. Council report), 35; 37—E
injections, procaine to overcome pain of, 77
VITAMINS A
hypervitaminosis, case in adult, [Sulzberger & Lazar] *788
hypervitaminosis with infantile cortical hyperostosis, [Rineberg & Gross] *1222
poisoning (chronic) from overdosage of percomorph liver oil, [Bair] *1573
poisoning in young children, [Gribetz] 1076—ab
treatment of dark adaptation, [Niedermeier] 760—ab
treatment of deafness, [Lobel] 1441—ab
VITAMIN B COMPLEX: See also Acid, *p*-aminobenzoic; Acid, folic
B_1: See also Acid, nicotinic; Thiamine Hydrochloride
B_{12}, Modest Miracle, (film review) 1255
B_2 treatment of dark adaptation, [Niedermeier] 760—ab
B_6: See also Pyridoxine
B_6, effect of aureomycin on response to, [Linkswiller] 1347—ab
B_{12} and folic acid in infant nutrition, (Council report) *1028
B_{12}, antibiotics act as growth stimulants, 479—E
B_{12}, antipernicious anemia factor, 1233—ab
B_{12}, cicerism and CH factor, [Vivanco] 218—ab
B_{12}, folic acid and pernicious anemia, 299
B_{12}, research on, Paris, 493
B_{12} solution, N.N.R., (Kremers-Urban) 1134
B_{12} treatment of herpes zoster, Paris, 1338
VITAMINS C: See Acid, ascorbic
VITAMINS D
intoxication, [Chaplin] 1069—ab
D_2 action, mechanism, Italy, 1246
D_2, Calciferol and dihydrostreptomycin treatment of lupus, 299
VITAMINS E
deficiency, in term pregnancies following abortion, [Jones & Delfs] *1212
VITAMINS K
treatment in bacillary dysentery, [Krause] 1079—ab
VITILIGO: See also Albinism
etiology: rubber gloves, [Botvinick] 600—ab
VIVISECTION: See Animal Experimentation
VOCATIONAL REHABILITATION: See Rehabilitation
VOICE: See also Speech
vocal training, (reply) [Froeschels] 418; (reply: National Hospital for Speech Disorders) [Clark] 418
VOMITING
aspiration of vomitus during anesthesia, [Culver] 1072—ab; 1236—E
in Pregnancy: See Pregnancy, toxemia of
sleeping pills containing emetics, 977
VULVA
is it rare for pregnancy to result from deposition of sperm on, without intromission? (reply) [Kelly] 692
VULVOVAGINITIS
Gonorrheal: See Gonorrhea

W

W.H.O.: See World Health Organization
WADSWORTH Lecture: See Lectures
WAGES: See also Income
better remuneration for junior hospital appointments, Norway, 494
Earners: See Industrial Health
Tax on: See Tax, income
WAR: See Korean War; Medical Preparedness; Military Medicine; World War III
Atomic Bombs used in: See Atomic Energy
Civilian Defense against: See Civilian Defense
Heroes: See Korean War, Heroes; World War II, Heroes
Veterans: See Veterans
WARNER, ESTELLA FORD
assigned to foreign mission in public health, 52
WARTS: See Verruca
WASHINGTON
Office: See American Medical Association
University (St. Louis) Economic Cooperation Administration teaching program, at Bangkok, 265
WASSÉN, ANDERS LAMBERT, death, Sweden, 55
WASSERMANN TEST
agreement between blood and spinal fluid serologic tests, 1545
comparative study, [Russo] 1355—ab
WATER: See also Floods; Ice; Swimming
aquaphor and ophthalmic ointment base, 691
chlorinated heavily, deleterious effects, 1273
cold water mattress to prevent hyperthermia during anesthesia, [Bigler & McQuiston] *553
daily wetting of hair, 1090
diseases traceable to, 52
industry needs more, 492
metabolism, postoperative, [Ariel] 399—ab
Mineral: See Health resorts
pollution, report on, 392
supplies, clean streams program, Pa., 485
supplies, fluoridation, Nebraska, 856
supplies (public), fluorine in, 607
supplies, state approves fluoridation, Kansas, 41
thirst, mechanism of, 1580—ab
well, cyanosis from nitrates in, [Ewing] 1356—ab
WATERHOUSE-FRIDERICHSEN SYNDROME
nature of; treatment, cortisone, [Nelson & Goldstein] *1193; [Newman] *1229
WAX: See Beeswax
WAYNE UNIVERSITY
continuation courses at, 1517
Dr. Redl named to Franklin Memorial chair, 384
WEATHER
variations and fibrositis, 1274
WEBER-Christian Disease: See Panniculitis
WEIGHT: See Obesity
WEINFELD, WILLIAM, Income of Physicians, 1929-49, 1237—E
WELDING
aluminum, and helium, 979
eye injuries in welders, 417
welders' disease, Belgium, 670
WELL Water: See Water
WERTHAN Foundation: See Foundations
WEST VIRGINIA
University, Morgantown selected for new medical school, 1332
WHEELCHAIR
homes for veterans, 1436
WHELAN, JEWEL F., death, 39
WHIPPLE, ALLEN, awarded distinguished service medal, (portrait) 735—E; 831
WHIPPLE, GEORGE H., portrait, New York, 42
WHIPPLE'S DISEASE
role of adrenal cortex in, [Mochlig] 601—ab
WHISKEY
recommended for persons with "strokes," 1274
WHITAKER and Baxter: See American Medical Association, National Education Campaign
"WHITE PAPER": See National Health Service, England
WHOOPING COUGH
agglutinogen skin test, [Barysh] 215—ab
treatment, chloramphenicol, [Lassen] 1266—ab
treatment, chloramphenicol and aureomycin, [Buser] 1083—ab
treatment, effective, 75
treatment, streptomycin, aureomycin, chloramphenicol and terramycin compared, [Booher] 1161—ab
treatment, suppressive, with chloramphenicol in contacts, [Bogdan] 1267—ab
vaccine, alum precipitated-U.S.P., N.N.R., (Pitman-Moore) 34
vaccine and diphtheria toxoid combined, alum precipitated, N.N.R., (Squibb) 1134
vaccine, encephalitis following injection of, 510
vaccine-U.S.P., N.N.R., (Pitman-Moore) 34; (Sharp & Dohme; Squibb) 1134
WILKIE'S SYNDROME
arteriomesenteric ileus, [Telford] 62—ab
WILKINS Memorial Library Fund, Iowa, 483
WILSON, WILLIAM L., appointed assistant administrator, 275
WINOS
difference between so-called winos and other types of chronic alcoholism, 1274
WIRE
sutures, Bunnell's pull-out, [Moberg] 760—ab
WIRELESS: See Radio; Television
WIRING
intra-arterial, of aneurysms of aorta, [Blakemore] 1158—ab
WOMAN'S AUXILIARY
gift to American Medical Education Foundation, 942
WOMAN'S HOME COMPANION: See Journals
WOMAN'S MEDICAL COLLEGE of Pennsylvania, 948
WOMEN: See Marriage; Maternity; Menopause; Menstruation; Pregnancy
in Medicine: See Nurses and Nursing; Physicians, women
WOOD Alcohol: See Methyl Alcohol
WORDS AND PHRASES: See Terminology; Medicolegal Abstracts at end of letter M
WORK: See also Effort; Exercise; Industrial Health
diabetes mellitus and, Italy, 576
gastroduodenal ulcer and, Italy, 576
Pay for: See Wages
Therapeutic Use of: See Occupational Therapy
WORKMEN'S COMPENSATION: See also Industrial Accidents; Medicolegal Abstracts at end of letter M
A.M.A. Board of Trustees report on medical relations in, 940
WORLD
Conference on Medical Education in 1953 to be held by World Medical Association, 656
Congress for Welfare of Cripples, 1431
Congress of Cardiology, report on tensiography of auricle and ventricle, Italy, 276
WORLD HEALTH ASSEMBLY
report, 857
WORLD HEALTH ORGANIZATION
aids earthquake victims, 740
Eliot (Martha) resigns from, replaced by Dr. Candau, 949
Executive Board Session, 949
fellowships, 661
Gear (H. S.) appointed assistant director general, 1333
regional office in Manila, 1240
ships mobile health units, 1141
WORLD LEAGUE: See United Nations
WORLD MEDICAL ASSOCIATION
meeting April 29 to May 6, 1951 in Geneva, Switzerland, 656
meeting in Stockholm, Sweden, 278: 1426
modernization of Hippocratic Oath by, Declaration of Geneva, (1948), 793—ab
WORLD WAR II, HEROES
Robertson (R. C.) Legion of Merit, 667
WORLD WAR III
medical preparation for, Sweden, 1338
WORMSEED Oil: See Oil of chenopodium
WOUNDED: See Korean War
WOUNDS: See also Accidents; Burns; Lacerations; Trauma; under names of specific organs
healing, effect of skin extracts on, [Putkonen] 1448—ab
healing, stimulation of granulation and epithelialization, 509; 1089; [Berman] 1546
infection (fatal), Clostridium botulinum in, [Davis & others] *646
infection of "clean" surgical wounds, [Girdlestone] 1080—ab
Suture of: See Sutures
WRESTLING
fatalities in, [Gonzales] *1506
WRIST
demineralization of carpal bones, 766
ganglion on, 222; (reply) [McKeever] 692
melanoma on, 1457
tuberculous arthritis, treatment with *p*-aminosalicylic acid plus streptomycin, 1366
WRITING: See also Books; Book Notices at end of letter B; Journals; Newspapers
medical papers, 1119—ab
WYETH INCORPORATED to produce drugs in South America, 741

X

XENON
anesthetic properties, 1425—E
XEROSTOMIA
severe dryness of mouth, 878
X-RAYS: See Roentgen Rays
XYLENE
DDT in triton-xylene-water for eradication of malaria, 1599—E

Y

YALE
University School of Medicine to increase enrolment, 41
University, Summer School of Alcohol Studies, 483
YAWS
treatment, aureomycin, [Ampofo] 410—ab
treatment, chloramphenicol, [Ampofo] 410—ab
YELLOW FEVER
in Ecuador, 1061
YOGURT
nutritive value, 221
YOUTH: See Adolescence

Z

ZINC
sulfate, treatment of Rhus dermatitis, [Hoagland & others] *612
ZONING LAWS: See Medicolegal Abstracts at end of letter M
ZOSTER: See Herpes Zoster

AUTHOR INDEX

In this Index are the names of the authors of articles which have appeared in THE JOURNAL, the names of those who have read papers before Societies as published in THE JOURNAL and those whose articles have been abstracted in the Current Medical Literature Department. The * preceding the page reference indicates that the article appeared in full in THE JOURNAL.

For subject index see page 1623.

A

Abbott, O. A., 403
Abelson, S. M., 873
Abely, P., 1171
Abrams, H. L., 1612
Abrams, W. B., 284
Acierno, L. J., 1442
Ackerman, A. J., 283
Ackerman, L. V., 63
Adams, C., 681
Adams, F. H., *31
Adams, R. C., *801
Adams, W. S., 1260
Adcock, J. D., 60
Adin, L. E., Jr., 674
Aird, R. B., 1535
Aisenson, M. R., 1526
Ajello, L., *1581
Albrecht, R. M., *769
Albright, L. F., *1418
Aldrich, R. A., *1207
d'Allaines, F., 1164
Allan, F. G., 69
Allebach, N., 1536
Allen, J. R., 751
Alley, F. H., 1070
Allibone, E. C., 1080
Altman, W. A., *254
Alway, R. H., 1612
Amadei, A., 1264
Amberg, F., 973
Amistani, B., 685
Ampofo, O., 410, 410
Anderes, E., 69
Anderson, G. W., 675
Anderson, R. C., 600
Anderson, T. P., 677
Andreassen, A. K., 1357
Andrews, G. C., *1107
Angelides, A. P., *713
Antoniazzi, B., 1083
Apley, J., 1614
Appel, F. W., 681
Appel, S. B., *1474
Apter, N. S., *25, 1344
Arana Iniguez, R., 1451
Arany, L. S., 1531
Arbuse, D. I., 1161
Arce, G., 1170
Archambault, J., 1084
Arenas, N., 408
Arieff, A. J., *1551
Ariel, I. M., 399
Armand Ugon, V., 874
Armas Cruz, R., 409
Armistead, G. C., Jr., 960
Armstrong, C. W. J., 1160
Aronson, R. P., 1356
Arrillaga, F. C., 1616
Ashby, D. W., 1616
Askey, J. M., *1008
Atkins, J. P., *241
Atria, A., 1452
Auerhan, H., 1078
Ault, G. W., 288
Auvert, J., 684
Avery, R. C., 1258
Ayers, W. B., 65

B

Baab, O. D., *97
Bacon, H. E., 1537
Bacon, R. H., *1233
Baggs, W. J., 65, 1071
Bailey, C. P., 402, 406
Baker, F., 214
Bair, G., *1573
Baker, S. L., 1063
Baldridge, G. D., *1410
Balkin, S. G., *31
Ball, R. C., 65
Bang, F., 1358
Banks, R., Jr., *1288
Barber, K. E., *1551
Barbour, R. G. H., 761
Barhash, A. Z., *1584
Barker, D. E., *1219
Barnes, M. W., 60
Barnett, H. L., 755
Barnett, T., *1412
Barnwell, J. B., *1372
Baroody, W. G., 1613
Barry, G. R., 751
Barthel, S., 1081
Barton, B. E., 958
Barysh, N., 215
Bassi, D., 1617
Bassi, M., 1171
Bastagli, D., 69
Bastiaans, J., 1259
Bateman, J. C., 402
Batterman, R. C., 1536
Bauer, W., 1343
Baum, H. C., 675
Baumann, C. A., 1347
Baumgartner, L., *893
Beacham, D. W., 64
Beacham, W. D., 64
Beadenkopf, W. G., *621
Beal, J. M., 963
Bean, W. B., 755
Beard, E. E., 1445
Beard, R. R., *331
Bearse, C., 958
Beato Nunez, V., 1441
Beattie, A. D., 1354
Beatty, G. A., 1345
Bechtol, C. O., *625
Beck, C. S., 499, 601
Beck, D., 826
Beck, E., *783
Beck, W. S., 1260
Becker, R. J., *1017
Becker, W. H., 1346
Beech, R. D., *1597
Beecher, H. K., 1072
Beecher, S. B., 1075
Beidelman, B., 1259
Beierwaltes, W. H., 1533
Beinfield, M. S., 1163, 1349
Belding, H. H., III, 1077
Bell, A. C. H., 1352
Bell, D. M., *1383
Bello, C. T., 1609
Belnap, W. D., 601
Benchimol, A. B., 67
Benjamin, S., *813
Benner, W. H., 758
Bennett, A. E., 1161
Benson, J. A., Jr., 1256
Benzecry, I., 217
Berard, M., 291
Berenberg, W., 1076
Berens, J. J., 1609
Bergenstal, D. M., *25
Berger, A. R., 1346
Berger, H., 679
Berger, L., 869
Berglund, E., *31
Berkson, J., *1367
Bernard, E., 1169
Berris, B., 679
Bertheas, O., 1167
Bertolini, A. M., 1166
Bertoye, P., 1539
Bertrand, L., 604
Best, W. R., *615, 1346
Beutl, W., 218
Beyer, W., 408
Bierman, H. R., 1348
Bigler, J. A., *551
Bilderback, J. B., 1611
Bilka, P. J., 757
Billig, H. E., Jr., *1179
Billing, B. H., 603
Billingham, R. E., 1615
Binaghi, G., 875
Bingham, J. R., *1406
Biörck, G., 290, 1352
Biro, L., 969
Birch-Jensen, A., 1172
Birath, G., 1168
Bischoff, A. J., 1534
Bishop, R. C., 497
Bissell, D. M., 1526
Bjørneboe, M., 1267
Black, R., 503
Blacklock, J. W. S., 291
Blades, B., 960
Blain, A., III, 966
Blaisdell, E. R., 756
Blakemore, A. H., 1158
Bland, E. F., 871, *1291
Blank, H., *1410, 1446
Blankenhorn, M. A., 62
Blodi, F. C., 60
de Blomenfield, E., 404
Bloom, H. J. G., 502
Blount, W. P., *699
Bloxsom, A., *1120
Blumensaat, C., 1359
Boas, E. P., 961
Bodian, M., 603
Böe, J., 1264
Bogdan, A., 1267
Bohnhoff, M., 1446
Boles, T. C., *1296
Bolt, W., 685
Bonaba, J., 1164
Bone, F. C., 61
Booher, C. E., 1161
Boshes, B., *1551
Borenstein, P., 1171
Borman, M. C., *337
Bornstein, P. K., *1418
Bors, E., *225
Bostock, J., 604
Botelho, G., 1269
Botsford, T. W., 288
Bottomley, H. W., 968
Botvinick, I., 600
Bourdillon, R. B., 1080
Bousfield, C. E., 1152
Bousfield, G., 1450
Bousquet, F. P., Jr., 1342
Boutilier, M., 1265
Bower, J. S., *987
Boyce, F. F., 1349
Boyd, J. O., Jr., 1151
Braaten, K., 761
Bradess, V. A., *334
Bradley, C., *436
Bradley, C. E., *1249
Bradsher, J. T., Jr., 1536
Brage, D., 1268
Brahdy, M. B., *772
Brantigan, O. C., 1534
Braunsteiner, H., 1541
Brauss, F. W., 874
Bravo Mateos, C., 1269
Breakey, V. K. St. G., 1357
Breidahl, H. G., 292
Brenner, L. O., 403
Breslow, L., 1342
Brettler, A., 971
Brewer, J. H., *729
Bricaire, H., 217
Brilhart, K. B., 676
Brill, I. C., *1275
Brimblecombe, F. S. W., 1614
Brink, W. R., 752
Britten, S. A., *710
Broadbent, T. R., 1350
Brock, B. L., 1259
Broekhuysen, L., 1614
Brodsky, M., 1616
Brodthagen, H., 759, 973
Brown, C. T., 758
Brown, G. M., Jr., 61
Brown, H. A., 1071
Brown, J. B., *628
Brown, M., *1551
Browne, D. C., 965
Bruce, T., 1168
Brueck, J. W., 681
Bruetsch, W. L., 396
Brugsch, H. G., 1348
Brummelkamp, R., 682
Brun, J., 1167
Brunner, M. J., 1346
Brunsting, L. A., *1207
Buchtel, H. A., *1202
Buddingh, G. J., 681, 869
Budenz, G. C., *1221
Buerk, M. S., 1446
Bufalari, A., 1453
Burchenal, J. H., 870, 960
Burgoon, C. F., *1410, *1570
Burke, G. E., 283
Burns, E., *419
Burton, W. Y., 1611
Buser, F., 1083
Bustamante Riofrio, R., 1448
Butler, T. J., 1615
Buxton, R. W., *301
Byrnes, V. A., 675

C

Cader, G., 757
Caffey, J., 66
Cahill, G. F., 1446
Caldarola, L., 1267
Callahan, D., 1348
Callow, V., 1267
Calnan, W. L., 1265
Calzada, R. M., 1170
Cameron, C., 289
Campbell, F. B., *93
Campbell, J. D., *87
Campbell, M., 1611
Campbell, R. M., *1221
Candel, S., 1158
Cannon, E. J., 1069
Cantonnet Blanch, P., 1164
Cantor, M. O., *560
Capper, W. M., 1615
Capriglione, L., 67
Carcassi, U., 875
Carden, M. L., 680
Cardeza, H., 967
Cardullo, H. M., 1350
Carman, H. J., *81
Carmichael, D. B., 871
Carothers, E. L., 1156
Carr, D. T., 1071
Carrera, I., 967
Carrera, J., 761
Carroll, D., 1609
Carruthers, C. M., 1533
Carter, A. B., 1354
Carter, C. O., 603, 967
Carter, F. S., 1532
Carver, G. B., 966
Cass, J. W., Jr., 1528
Cassar, H., 409
Cassel, C., 61
Cassidy, R. H., *699
Castro, A. F., 288
Cates, J. E., 1165
Cattaneo, P., 1264
Cattell, R. B., *1230
Cawthorne, T., 1079
Cezar de Andrade, L. F., 289
Chaikoff, I. L., 1350
Chalmers, J. A., 969
Chamberlain, R. H., 1262
Chambers, J. W., 1260
Chandler, P. A., 59
Chaplin, H., Jr., 1069
Chapman, E. R., 1157
Charteris, A. A., 753
Chase, J. S., 870
Check, D. B., 1267
Chen, M. P., 503
Chene, P., 1358
Childress, W. G., *1188
Chisholm, T., *31
Chon Hao Li, 1447
Chor, H., *1551
Chris, S. M., 1165
Christie, A., 215
Christie, R. V., 1165
Churg, H., 1070
Ciocatto, E., 1267
Clark, L. D., 1069
Clarkson, F. A., 1355
Clatworthy, H. W., Jr., 1161
Clay, R. C., 63
de Clercq, F., 67
Cline, J. W., *609, *823, *1238 *1600
Close, H. P., *1323
Coca-Mir, R., *987
Cohen, A. C., 755
Cohen, A. G., *1416
Cohen, M. E., *902
Cole, C. R., 1257
Coleman, V. R., 674
Collier, F. A., *301, 966
Collier, F. C., 406
Collins, C. G., 1071
Collins, J. H., 65
Comarr, A. E., *229
Conger, A. B., Jr., *918
Conklin, W. S., *633
Conley, C. L., 1160
Conn, H. C., 680, 681
Convit, J., 404
Conway, H., 680
Cook, A. W., *1105
Cook, C. D., 1076
Cooper, W. A., 1158
Coppridge, W. M., *107
Corcoran, A. C., *643
Corday, E., *1275
Cornbleet, T., *1116
Corscaden, J. A., 1442
Cosand, H. C., *612
Costantini, A., 1267
Coste, F., 1617
Counseller, V. S., *27
Cowen, D., 1347
Cowley, R. A., 405
Craddock, C. G., Jr., 1262
Craddock, W. L., *1315
Crafoord, C., 1168
Crane, C., 286
Craver, L. F., 870, *1595
Crawford, S. E., *21
Creevy, C. D., 1611
Crile, G., Jr., 61, 753, 1077
Crockett, C. L., 1262
Crome, L., 1614
Cross, J. B., 1350
Cross, K. W., 1449
Crowe, R. R., 1258
Culp, D. A., *107
Culver, G. A., 1072
Cummins, G. M., Jr., *1125
Cutler, J. W., 964
Cutts, F. B., *1282
Czech, H., 1540

D

Dahr, P., 1355
Dale, P. W., *314
Dalhamn, T., 290
Dann, S., 1536
Darby, W. J., 1156
Dargeon, H. W., 870
Dattner, B., 286
Dauis-Lawas, D. F., 287
Davidson, J. D., 871
Davila, M., 409
Davis, C., Jr., *430
Davis, E., *247
Davis, H. A., 1343
Davis, J. B., *646
Davis, L., 399
Davis, L. B., 405
Deane, E. H. W., 1356
Dearing, W. H., 287
DeBakey, M., 1530
Debray, C., 1452
Debray, J., 1452
Debre, R., 1359
DeCamp, P. T., 216, 1530
Deckart, H., 760
Decroix, G., 292
DeFeo, E., 1263
Delfs, E., *1212
Delorme, E. J., 291
DeLuca, F. R., 1349
DeMay, G. H., *645
deMello, L., 286
DeMuth, W., Jr., 1535
Denny, F. W., 752
Desplerres, G., 1166
deTakats, G., 286, *1370
Dettmar, H., 71
Deutsch, E. V., 500
Dexter, H. T., 1342
Deyke, V. F., 962
Diamond, H. D., *1595
Dickinson, F. G., *1249
Dillon, A., 61
Dinken, H., *232
di Palma, S., 1529
Doane, J. C., *926
Dock, W., *1284
Dockerty, M. B., 288
Dodds, E. C., 1063
Doerner, A. A., *641
Doll, R., 1168
Domonkos, A. N., *1107
Doniach, I., 1355
Donikian, M., 1071
Donohue, J. F., *1590
Donovan, E. J., *1511
Donzelot, E., 1164
Doolan, P. D., *105
Doret, M., 970
Dorfman, A., *25
Dorton, H. E., 1162
Doster, M., 872
del Dotto, M., 1617
Doty, R. D., 1261
Douglas, R. S., 1264
Downie, E., 971
Downing, D. F., 406
Draa, C. C., 675
Driskell, M. M., *1291
Dubas, J., 683
DuBois, R., 681
Due, F. O., *1183
Dufourt, A., 1167
Dumoulin, J. G., 1540

Duncan, G. G., 1259
Dunn, C. W., 677
Dunn, W. H., 1445
Dunsmore, R., 285
Duran, F., 1616
Durieu, H., 67
Dustan, H., *643
Dutra de Oliveira, J. E., 969
Dye, W. E., 962

E

Ebaugh, F. G., *314
Eckstam, E. E., 288
Eddy, F. D., 216
Edington, G. M., 1617
Edmonds, H. W., 1612
Edwards, B. F., 1350
Edwards, E., 965
Edwards, E. A., 286
Edwards, J. E., 400
Eerland, L. D., 874
Effler, D. B., *1321
Eggston, A. A., *334
Ehrenfried, A., 958
Eiber, H. R., 1158
Eichna, L. W., 1346
Eisaman, J. L., *1417, 1532
Eisen, M. J., 870, *1414
Elkins, C. W., 64
Elliman, P., 1082
Elsner, P., 1269
Emlet, J. R., *1383
Enselberg, C. D., 1447
Epstein, N. N., 751
Erb, W. H., 1613
Estrade, F., 1082
Evans, A. T., 283
Everett, R., *1314
Ewing, M. C., 1356
Eyrolle, A., 1358

F

Faber, M., 1541
Faison, J. B., *1393, *1459
Farrell, J. B., 1161
Feingold, B. F., *319
Felding, C. F., 875
Feldman, D. J., *1408
Feldman, M., 498
Feldman, P. W., 680
Feisenfeld, O., 1156
Ferebee, S. H., 681
Ferguson, J. H., *1388
Fernandez, F. J., 1170
Fidler, W. F., 60
Fields, J., *1275
Findlay, G. M., 410, 410
Fine, J., 1072
Finkelman, I., *1551
Finland, M., 60
Finn, J. J., Jr., 1348
Finn, O. A., 290
Fischel, E. E., 1340
Fischer, H., 1163
Fischl, A. A., *704
Fisher, M., 497
Fisher, P., 1069
Fison, D. C., 292
Fitzgerald, J. E., *910
Fleming, A., 1079
Fletcher, C., 1168
Flipse, M. E., 402
Florey, M. E., 603
Flumerfelt, J. M., *1589
Foisie, P. S., 958
Foix, A., 408
Foldes, F. F., 679
Forbes, G. B., 501
Forestier, J., 502
Forman, C. W., 755
Forsgren, E., 1081
Forsyth, C. C., 501
Foss, G. L., 970, 1168
Fowler, W. M., 677
Foy, G. H., 1539
Foy, H., 683
Franco, T., 1166
Franklin, J., 1162
Frasson, U., 1079
Frazier, C. A., *247
Frazier, R. L., 873
Freeble, C. B., Jr., *1590
Freeman, J., 396
Freeman, W., 1351
Frelick, R. W., 1345
Fremont, R. E., *1592
French, J. D., *223
Frenkel, M., 759
Freyham, F. A., 1611
Friedlaender, A. S., *1381
Friedlaender, S., *1381
Fromm, S. M., 757
Fryer, M. P., *628
Fuller, H. S., 1162
Furbetta, D., 1453, 1615

G

Gärtner, H., 874
Gaillard, L., 1166
Gaillard, P. J., 682
Galez, R., 1083
Galmiche, P., 1617
Gans, R. H., 961
Gans, S. L., 965
Gansen, H., 759
Garber, C. Z., 1159
Garcia, J. F., 1447
Gard, S., 1169
Garland, L. H., *454
Garn, S. M., *1291
Garreton Silva, A., 685
Garrod, L. P., 1165
Gass, R. S., 61
Gaston, E. A., *1486
Gautard, J., 1452
Geddes, A. K., 407
Geerling, J. G., 503
Geisel-Wermter, E., 68
deGiennes, L., 217
Georg, L. K., 395
Gerritis, J. C., 1081
Gertler, M. M., *1291
Ghormley, R. K., *1026
Ghosh, P. K., 70
Giansiracusa, J. E., 1343
Giardini, R. G., 217
Gibert, P., 217
Gibson, Q. H., 1357
Gibson, S., 868
Giges, B., *1416
Gil, J. R., 1257
Gilbert-Dreyfus, 1452
Gilchrist, R. K., 1534
Gillespie, E. C., *1190
Gilliam, J. S., Jr., 1161
Gillies, H., 1448
Gilmour, M. T., 1343
Ginsberg, M., *1317
Ginzburg, L., 1078
Girdlestone, G. R., 1080
Giunti, V., 1615
Glassmire, C. R., 756
Glazko, A. J., *1190
Glinsky, G. C., 755
Glover, R. P., 402, 406
Glückert, H., 874
Gold, E. M., *1459
Goldberg, R. C., 1350
Goldbloom, A. A., *1593
Goldstein, N., *1193
Goldstein, R., *616
Goldwater, L. J., 495
Golligher, J. C., 1080
Gomez Orbaneja, J., 1269
Gonzales, T. A., *1596
Goodlet, T. E. W., 1082
Gordon, D., 1159
Gordon, D. M., *810
Gorrell, R. L., 1340
Gorse, J. M., 1358
Gosman, J. H., *1570
Govan, A. D. T., 68, 70, 684, 1540
Grace, E. J., 1151
Grace, W. J., *981
Grady, E. D., 1257
Grandjean, L. C., 1266
Granirer, L. W., *995
Graub, M., *1420
Gray, S. J., 1256
Greengard, J., 1342
Greenspan, R., 214
Greenwald, I., 1248
Greer, A. E., *1321
Greer, W. E. R., 1261
Gregory, F. J., 681
Grezard, L., 291
Gribetz, D., 1076
Griep, A. H., 751
Grieve, W. S. M., 1265
Griffith, G. C., 870, *1004, 1073, 1073, 1610
Griffith, J. E., Jr., 1612
Griffiths, J. T., Jr., 1444
Griffiths, R. B., 682
Grimson, K. S., *1383
Grist, N. R., 503
Groen, J., 759, 1075, 1259
Grollman, A., 674
Gross, R. E., 215, 1161
Gross, R. J., *1222
Gross, S. W., *10; (correction) 387
Grove, D. D., *446
Gubner, R., 1442
Gudmundson, H. R., *546
Gütgemann, A., 1164
Guillaume, J., 1084
Gunnison, J. B., 674
Gutenkauf, C. H., 871

H

Haas, C. M., *1313
Haefliger, E., 68
Hahn, E. O., 1074
Hahn, P. F., 1156
Halbersleben, D., 958
Hale, C. J., 1346
Hall, B. E., *1301
Hall, F. G., 216
Hall, K. D., 216
Hall, T. N., *1469
Hall, W. C., 751
Hall, W. H., 1162
Hallock, H., 1159
Hallsted, A. M., 1343
Halstead, W. C., 1344
Hamburger, M., 62
Hamilton, H., *450
Hamke, H., 968
Hamlin, H., 1534
Hammes, E. M., Jr., *1401
Hampton, L. J., 63
Hanlon, C. R., 63
Hansen, E. B., 1453
Hansen, P. B., 967
Hardy, H. L., 497
Hargreaves, A., 683, 1539
Harper, W. F., 1540
Harrill, J. A., 678
Harrington, A. B., 1357
Harrington, S. W., 288, 963
Harris, T. N., 284
Harris, W. W., 751
Harrison, C. V., 1538
Harrison, D. C., 1357
Harrison, J. H., 288
Hart, F. D., 1352, 1449
Hartman, E. E., 1075
Hartmann, J. R., 1076
Hartung, I., 1448
Harvard, B. M., *419
Harvey, C., 71
Harvey, J. C., 753
Haserick, J. R., *16, *643
Hathaway, R., 1163
Hauser, T. E., 1258
Hawthorne, H. R., 961
Headland, C. I., *989
Hedden, J. C., 1350
Hegedus, W. J., 64
Heimann, H., 282
Heim de Balsac, R., 1164
Heller, J. R., 1248
Heller, P., 601
Hellinga, G., 759
Hellström, J., 1081
Henderson, A. T., 873
Henderson, E. L., *381
Hendricks, A. B., 677
Hendricks, C. H., *100
Hensell, V., 683
Herrera Cabral, J. M., 292
Herrick, J. F., 677
Herschfus, J. A., 1610
Herve, L., 1616
Hess, J. H., *891
Hevia, H., 1170
Hewitt, L. F., 68
Hewitt, J., 1540
Hick, F. K., *615
Higgins, C. C., *7
Higgins, T. T., 1353
Highstein, R., *816
Hill, H. A., *454
Hill, P. S., Jr., *1313
Hill, R. L., *324
Hill, R. P., 601
Hinkel, C. L., *1129
Hinman, F., Jr., *423
Hoagland, R. J., *612
Hobby, G. L., 1071
Hoch, P. H., 1351
Hodges, H. H., 1343
Höring, F. O., 290
Hollan, O. R., 1529
Holman, E., *1
Holt, L. E., Jr., 1350
Homburger, F., 500
Hoobler, S. W., 751
Hooks, C. A., *24
Hopkins, W. A., 403
Horsfall, F. L., Jr., 215
zur Horst-Meyer, H., 1266
Horwitt, B. N., 1159
Houser, H. B., 1074
Howard, F. H., 680
Howard, T. L., *1202
Howarth, B. E., 1356
Howes, W. E., 66
Howorth, M. B., *97
Hoyne, A. L., *707, *1017
Hsiang, C. M., 757
Hua, Y., 503
Hubbard, D. M., 600
Hubbard, J. P., 284
Huber, K., 1172
Hueper, C. W., 284
Huff, R. L., 1447
Hughes, E. S. R., 1080
Hughes, F. A., *244
Hughes, F. J., Jr., 962
Hughesdon, P. E., 1540
Hulett, A., 1151
Hume, E. E., *1307
Humphrey, H. H., 280
Hunt, J. N., 1615
Hurst, A., *778
Hutt, M. S. R., 1083
Hyde, T. L., *1478

I

Ingalls, T. H., *710
Ingelfinger, F. J., *1406
Inglis, K., 603
Invernizzi, G., 1453
Irons, E. E., *1023
Irvin, C. W., Jr., *1282
Isaacson, N. H., 960
Iversen, K., 963
Iversen, T., 1541

J

Jackson, R. L., 1612
Jacoli, G. G., 396
James, L. A., 962
Janbon, M., 604
Janes, R. G., 1612
Jannini, P., 1614
Javier, M. M., 875
Jawetz, E., 674
Jelliffe, D. B., 71
Jimenez Diaz, C., 218, 408
Johns, V., 1610
Johnson, B. H., 1531
Johnson, D. S., 868
Johnson, H. E., 1258
Johnson, J. M., 59
Jokl, E., 67
Jones, E. H., Jr., 602
Jones, F. A., 1168
Jones, G. E. S., *1212
Jones, H. W., Jr., *1197
Jones, R. S., 1070
de Jong, J. G. Y., 503
de Jong, M., 1357
Jordan, E. P., 1340
Jung, F. T., 1444

K

Kagan, B. M., 678
Kahn, A., Jr., *728
Kalb, J. C., 1167
Kamminga, C. E., 1075
Kane, L. W., 1348
Karnofsky, D. A., 960
Karp, M., *21; (correction) 741
Karpman, B., *721
Karpovich, P. V., 1346
Kastrup, H., 1453
ten Kate, J., 1168
Katz, E., 1164
Katz, K. H., 756
Katz, S. H., *772
Kauffmann, F., 499
Kaufmann, C., 1355
Kauntze, R., 1080
Kauppinen, M., 759
Kaye, H., 410
Keaty, C., 1077
Keefer, C. S., 1261
Keeney, A. H., 401
Keeton, R. W., *615
Kegel, A. H., *915
Keith, J. D., 501, 968
Kelleher, W. H., 1357
Kelsey, F. E., *1131
Kelso, J. W., 1077
Kendall, F. E., 871
Kenis, J., 67
Kennamer, R., *1275
Kennedy, B. J., 498
Kennedy, R. L. J., 1075
Keown, K. K., *446
Kesert, B. H., *1551
Kety, S. S., 1611
Keutmann, E., 679
Key, J. A., *1091
Kidd, H. M., 407
Kilbourne, E. D., 215
Kilham, L., *1231
Kiljunen, A., 1448
Kimmelman, L. J., 1535
King, E. J., 1538
King, J. C., *1298
Kinnunen, O., 759
Kipen, C. S., 1345
Kipkie, G. F., 868
Kipping, H., 760
Kirby, C. K., 966
Kirby, W. M. M., 752
Kirklin, B. P., *1026
Kirsch, N., 754
Kirwin, T. J., 285
Kleiber, E. E., 402
Kleiman, A., *1592
Klein, M., 1535
Klein, M. R., 1083
Klein, R., 500
Kleinfelder, H., 1172
Kligman, A. M., *1563
Kline, N. S., *1547
Knapp, A. A., *12
Knobloch, H., *886
Knobloch, J. D., *1469
Knoblock, E. C., 758
Knoch, H. R., *1319
Knolle, K. C., 755
Knox, L., 873
Kölbl, H., 1541
Køster, K. H., 762
Kostrubala, J. G., *1551
Kohlerman, N. J., 1157
Kohout, F., 1448
Kolff, W. J., *1019
Kolle, K., 1079
Kolpak, H., 604
Kondi, A., 683, 1539
Kooreman, P. J., 682
Kossmann, C. E., *1474
Kovarik, J. R., 64
Kraeft, N. H., *244
Krause, M. F., 1079
Kravitz, C. H., *926
Kravitz, S. C., *1595
Krehbiel, S., *250
Krels, B., 1169
Krevsky, D., 678
Krisch, W., 218
Kriss, J. P., 963
Kristensen, H. K., 1448
Krohn, P. L., 1615
Krook, H., 1352
Kruger, H. E., *1275
Kryle, L. S., 1536
Krynauw, R. A., 70, 1171
Külz, A., 218
Kuhlendahl, H., 683
Kuhns, J. G., 1352
Kuipers, K. W., 1168
Kulka, J. P., 1343
Kulvin, M. M., 675
Kyle, L. H., *105

L

de la Balze, F. A., 1616
Labesse, J., 1359
Labo, G., 1166
Lacey, B., 1449
Lafay-Coletsos, L. H., 409
Laff, H. I., *778
Lahey, F. H., 1078, 1531
Lambert, E. C., 753
Lambertz, H. J., 69
Lamborne, M. D., Jr., 1153
Lamy, M., 1359
Landsman, J. B., 503
Lane, C. G., *717
Lans, H. S., *1017
Larghero Ybarz, P., 967
Larner, A. E., 1160
Lassen, H. C. A., 1266
Lasser, R. P., 869
Lauer, D. J., 754
Laupus, W. E., 1342
Laurens, J., 1537
Laurie, J. H., 1265
Law, L. W., 404
Lawrence, E. A., 1345
Lazar, M. P., *788
Lazar, T., 1616
Leake, C. D., 495
Leake, W. H., 963
Leavell, B. S., 1262
Lebon, J., 973
Ledingham, U., 682
Lee, C. M., Jr., 1078
Lee, S. L., 1343
Lefrancois, C., 409
Lehman, E. P., 279
Lehman, H. H., 202
Leighninger, D., 499
Leininger, C. R., 868
Leitner, S. J., 218
Leland, J. L., 1536
Lelong, M., 1451
Le Melletier, J., 409
Lemmon, C. J., Jr., 1350
Lempke, R., 869
Leneri, T. F., 1071
Lengemann, F., 1359
Lennox, W. G., *529; (correction) 662
Leo, T. F. P., 284
Leopold, I. H., 1069
Lepintre, J., 1083
Lerman, J., *1291
Lesne, E., 409
Lev, M., 960, 1442
Levene, G., *1320
Levin, M. H., 1260
Levin, M. L., *1397
Levine, S. A., *1291
Levine, S. S., 61
Levinson, D. C., 870, 1610
Levinson, L., 1610
Levitt, L. M., *1412
Lewes, D., 68
Lewis, R. A., 500
Lewis, W. G., 1531

Lieberman, S. L., 1608
Lieberson, A., *1593
Linden, V., 1264
Linkswiller, H., 1347
Linn, J. G., Jr., 1443
Lipari, M., 65
Lippman, R. W., 395
Lipton, I., *707
Lister, J., 682
Livingstone, R., 410
Lobel, M. J., 1528
Lobo Parga, G., 409
Lochhead, H. B., *1323
Locke, F. B., *769
Locke, M., 678
Locket, S., 1265
Lockie, L. M., 1349
Lodi, A., 69
Lönnerblad, L., 967
Loewe, L., 869, 1158, *1575
Long, E. E., 961
Long, P. H., *1317
Long, R. S., *645
Longmire, W. P., Jr., 963
Loofbourow, D. G., 1348
Loosli, C. G., *621, 1262
Lord, J. W., Jr., 966
de Lorenzo, J., 1614
Losada, M., 1452
Losner, S., 752
Losty, M. A., *1459
Lovell, R. G., *648
Lowe, R. F., 289
Lowenstein, L., 1446
Lowman, C. L., *1097
Lown, B., 1447
Lowry, C. C., *244
Lowsley, O. S., 285
Lozner, E. L., *923
Lucas, E., 875
Luce, D. S., 958
Luger, N. M., *1592
Luikart, R., H. *717
Lull, G. F., 202
Lutz, A., 762
Lutz, W., 407
Lutz, W. M., *324
Lyell, A., 1354
Lyon, G. M., *465

M

McAllister, F. F., 499
McCandless, C. M., Jr., *1221
McCart, E. J., 1075
McCarthy, P. L., *1410
McClure, J. A., *7, 1608
McCormick, E. J., *461
McCormick, N. A., 1354
McCoy, H. I., 1258
McCullough, J. A. L., 400
Macdonald, I., 1615
MacDonald, T. C., 503
Macdonald, W. B., 1267
Mace, A. J., *1230
McFarlan, A. M., 1080
Macfarlane, R. G., 970
McGee, H. J., 680
McGowan, J. M., *774
McHardy, G., 965
Machella, T. E., 1529
Macht, D. I., 280
McIntosh, H. N., 1075
McKhann, C. F., 601
Macklin, E. A., *1377
McLaughlin, C. B., *729
McLaurin, J. W., 1444
MacLean, A. R., *1367
McLean, H., 214
McLean, J. A., 674
McLeod, W. J., 1165
McNamara, H., 755
McQuiston, W. O., *551
McVickar, D. L., 215
Madsen, C. B., 967
Magnusson, J. H., 1169
Makel, H. P., 1072
Malcolm, D. C., 1534
Malluche, H., 407
Maloof, C. C., 497
Mancini, R. E., 1616
Mandel, W., *546
Mandelbaum, H., *1284
Mandelbaum, R. A., *1284
Mann, K. J., 1172
Manning, R. A., 1348
Marble, A., 1529
Marcus, R. E., 59
Mardis, R. E., 962
Marie, J., 762
Marion, P., 504
Mark, G., 68
Markovich, V., *1414
Marks, A. R., 1163
Marks, M. M., 62
Marland, P., 762
Marquardt, G. H., *1125
Marquardt, R., *923
Marshall, E. K., Jr., 1062
Marshall, G., 291
Martin, J. P., 1352
Martin, R. G., 757
Martin-du-Pan, R., 71
Martini, P., 759
Mascher, W., 1256
Mason, G. A., 684
Mason, H. L., *1207
Massell, B. F., *1469
Master, A. M., *1011
Mathews, K. P., *648
Mathisen, H. S., 761
Matlin, E., 1062
Mattel, C. C., 972
Mattman, L. H., *646
Maulini, M., 1445
Maunder, J. B., *1190
Mauser, C. L., *815
Maxfield, J. R., Jr., *920
Mayerhofer, E., 502, 1538
Mayo, C. W., *797
Mazare, M. Y., 1167
Mazars, G., 1084
Mazars, Y., 1084
Mazzi, A., 685
Mead, C. I., *85
Mead, J. J., 1262
Medawar, P. B., 1615
Medina, J. A., 404
Meerloo, J. A. M., 498
Meier, W. A., 60
Meister, L., *546
Mellink, J. H., 1450
Mellinkoff, S. M., 401
Mellone, O., 1359
Menci, S., 1171
Mendelson, R. W., *727
Meneghello, J., 408
Menkes, G., 1266
Merchante, A., 408
Merlis, S., 64
Merricks, J. W., 1534
Merskey, C., 970, 1353
Mescon, H., *1563
Metras, H., 1448
Metzger, W. I., 1163
Meyer, K. A., *1017
Meyer, W., 871
Michael, S. R., 1343
Michel, J. C., 752
Middleton, J. G., 215
Miles, J. A. R., 1354
Miller, A. H., 59
Miller, D. G., Jr., 1608
Miller, G., 968
Miller, H., *1004
Miller, J. H., 404
Miller, J. M., *1317
Miller, W. B., *783
Milne, J. A., 683
Milzer, A., 214, 284, 678, 1342
Minatta, R., 967
Mirick, G. S., 753
Mitchell, J. H., *541
Moberg, E., 760
Modern, F. W. S., *546
Moehlig, R. C., 601
Moers, H., 759
Moffett, J. D., *1288
Mohun, A. F., 1265
Moll, F. C., 752
Monahan, D. T., 1076
Monfardini, R., 409
Monnet, P., 1539
Montanari, L., 396
Montelth, J. C., 1446
Montgomery, M. M., *615
Moon, A. E., Jr., *24
Moore, D. C., *803
Moore, M. T., *324, 1344
Moore, P. M., 1445
Morgan, A., 1449
Morrison, H., *1575
Morrison, M., *1575
Morrison, S., 498
Morton, H. R., 57
Moruzzi, G., 396
Moseley, V., 1613
Mottram, M. E., *454
Mount, L. A., *693
Moyer, J. H., 283
Mozan, A. A., 676
Mozziconacci, P., 1359
Müller, A., 760, 1539
Müller, R., 407
Muirhead, E. E., 602
Mukherjee, C. L., 68, 70, 1540
Mulholland, J. H., 499
Musitelli, G., 1453
Myers, J. A., *1492
Myers, P. W., *612
Mynhardt, M. R., 1084

N

Naegele, C. F., *641
Nagy, G., 603, 969
Naish, J. M., 1614
Nash, J., 682
Nathan, M. H., 1263
Nathanson, I. T., 1263
Nathanson, L., 752
Nathanson, M. H., *1004
Nava, P., 969
Neal, M. P., *537
Necheles, H., 214
Needham, G. M., 287
Neiditsch, L., 1452
Neill, C. A., 968
Nelson, J., *1193
Nemir, P., Jr., 961
Neuhauser, E. B. D., 215
Newman, B., *335
Newman, L. B., *1551
Newman, L. R., *1229
Neumann, M. A., 1074
Niedermeier, S., 760
Nielsen, J. B., 1616
Norcross, B. M., 1349
Norcross, P., *1469
Nordenstrahl, G., 1268
Novak, E., *881
Nyst, P., 67

O

Oberdalhoff, H., 1266
Oblath, R., *1275
Ochsner, A., 1530
O'Connor, B., 672
O'Connor, W. R., *992
Ogilvie, A. C., 1079
Okie, M. V., 680
O'Neal, L. W., 63
O'Neill, T. J. E., 402
Orgain, E. S., *1383
Organe, G. S. W., 1352
Orle, N. G. M., 971
Osborne, J. A., *1275
Osgood, E. E., 674
Osher, H. L., 756
Osmond, H., 1167
Osnes, M., 1268
Overholt, B. M., *1186
Owen, C. R., 60

P

Packard, G. B., 1158
Pakesch, F., 1541
Palacios, J., 218
Pallin, I. M., 500
Palmer, E. D., 967
Palmer, R. S., 1348
Panos, T. C., *24
Papanicolaou, G. N., 1158
Papen, G. W., 958
Pare, J. A. P., 498
Parker, E. F., 401
Parlante, V. J., 1343
Partridge, J. W., 1348
Pattison, J. D., Jr., *783
Pau, H., 970
Paulson, D. L., *525
Paulssen, M. M. P., 971
Peale, A. R., 1537
Pearson, H. E., 870
Pease, G. L., *1301
Pedersen, J., 762
Peer, H., 1173
Pelser, H., 1075
Pender, J. W., *798
Penner, D. W., 407
Perez Scremini, A., 1164
Perianes, J., 408
Perley, A. M., 501
Perret, G., *556
Peterkin, G. A. G., 289
Peters, H. J., 971
Peterson, J. C., 215
Pfuentze, K. H., 1071
Phillips, I. E., 1526
Philpott, N. W., 1446
Picard, H., 972
Pick, C. A., 1446
Pickar, G., 402
Pickrell, K. L., 1350
Pickup, J. D., 1080
Pigeaud, H., 1166
Piguet, B., 1617
Pikula, D., 1071
Pillsbury, D. M., *1563
Pinson, E. A., 1535
Piquet, J., 292
Pirastu, C., 875
Place, V. A., *1227
Plotke, F., 751
Plum, F., *442
dei Poli, G., 1267
Pollard, H. M., 1532
Pollock, L. J., *1551
Ponsdomenech, E. R., 1441
Poole, J. C. F., 969
Popkin, R. J., 1344
Porrata-Armstrong, J. L., 1072
Porter, J., 756
Portillo, J. A., 1164
Post, C. F., *1107
Poth, E. J., 757
Potter, T. A., 1352
Potts, W. J., 868, 965
Press, P., 504
Price, W. C., 754
Pridgen, J. E., *797
Priestley, J. T., 676
Prince, J. S., 396
Prinzmetal, M., *1275
Prior, J. A., 1257
Probey, T. F., 1537
Proctor, E. L., 400
Prokop, O., 1539
Prunes, L., 1170
Puech, J., 1171
Pugh, D. G., *798
Pulvermacher, E., 410
Pump, K. K., 498
Purnell, J. E., 1069
Purtell, J. J., *902
Pushkin, W., *335
Putkonen, T., 1448

R

Rabbi, A., 396
Racely, C. A., 1611
Racine, R., 874
Rack, F. J., 64
Rader, B., 1346
Raimann, A., 408
Rammelkamp, C. H., 752, 1074, 1351
Ramos, J., 1359
Ramsay, A. M., 761
Randall, C. C., 869
Randolph, T. G., 676
Rankin, F. W., *918
Rankin, J. O., 1163
Rascoff, H., *886
Ratner, B., 965
Rattner, H., *1113
Ravdin, I. S., 966, 1535
Rawson, A. J., 400
Ray, C. J., 216
Ray, D. K., *301
Ray, S. C., 1538
Read, C. T., 964
Redmond, R. F., 65
Reedy, W. J., 678
Reese, A. B., 60
Reeves, G. A., *1594
Reeves, R. J., 61
Regan, F. D., *641
Reifenstein, G. H., *923
Reifenstein, R. W., 1256
Reilly, W. A., *234
Reimann, H. A., *713
Reimann, S. P., 1151
Reiner, C. B., 1158
Reinhardt, W. O., 1447
Reitman, P. H., 1263
Renard, G., 1451
Rennie, J. B., 683
Reymann, F., 759, 973
Reynolds, L. E., 1158
Reynolds, R. W., 1442
Ricci, G., 67
Richardson, J. S., 1083
Richter, R. B., *25
Ricketts, W. E., 1531
Riddell, J. M., Jr., 1346
Rieger, I. T., 1534
Riishede, J., 1541
Riley, C., 1265
Riley, C. M., 1262
Rindi, L., 1171
Rineberg, I. E., *1222
Ritter, M. H., 1262
Robbins, W. C., 752
Robert-Benon, 1452
Roberts, L. C., *107
Roberts, P. W., 1449
Roberts, W. M., *1099
Robins, E., *902
Robinson, A., *778
Rochu, P., 1448
Rodgers, H. W., 1168
Rodin, H., *1113
Rodriguez Barrios, R., 1451
Rodriquez, J., 751
Röhm, A., 970
Rønnike, F., 1358
Rogers, H. M., 400
Rollins, J. P., 676
Roodenburg, A. I., *1225
Root, H. F., 1529
Ropes, M. W., 1069, 1343
Rosahn, P. D., 406
Rosenstein, G., *926
Ross, M., *1313
Ross, W. D., 754
Ross, W. L., 1345
Rossi, C. A., 396
Rossier, A., 1451
Rotes-Querol, J., 502
Rountree, P. M., 761
Ruben, H., 1357
Rubie, J., 1265
Rubin, S. H., *1418
Rubinstein, J., *1575
Rudnikoff, I., *989
Rudolph, A. M., 410
Ruegsegger, J. M., 62
Ruffin, J. M., 61
Ruml, D., 1446
Runge, R. K., *1026
Russo, E., 1355
Rutenburg, A. M., 1072
Ruth, H. S., *446
Ruthberg, J., *704
Ryan, A. J., *1386

S

Saad Hossne, W., 969
Sabot, A., 1166
Sättler, G., 1164
Salfelder, K., 69
Salzberg, H., 1447
Samter, M., *615
Samwick, A. A., *1575
Sanchez Ibanez, J. M., 1083
San Julian, J., 1451
Sano, M. E., 1609
dos Santos Carvalhal, S., 1359
Santy, P., 504
Sarnoff, S. J., 1076
Sattler, T. H., *1125
Sautot, J., 291
Savage, T. R., 967
Sayer, R. J., 752
Scapellato, L., 1166
Scardigli, G., 1617
Schaal, K., 1450
Schachter, M., 762
Schaefer, L. E., 1157
Schaerrer, W. C., *93
Schenken, J. R., *645
Schermann, J., 67
Schmidt, E., 1541
Schlesinger, P., 67, 1448
Schleyer, F., 1539
Schlingman, S. S., 1157
Schmallenberg, H. C., *337
Schmid, H. H., 504
Schmidt, R. T. F., *1310
Schmidt, W. J. H., 1614
Schmitz, H. E., 1530
Schneider, G. T., 1071
Schneider, L. A., *1417
Schnür, M., 972
Schoenbach, E. B., *1317
Scholer, H., 1358
Scholte, P. J. L., 1450
Schottstaedt, W., *1377
Schramel, R. J., 216
Schrock, C. E., 755
Schütz, W., 1266
Schuhardt, V. T., 755
Schultz-Møller, K., 604
Schulz, L., *699
Schumann, F., 1613
Schwartz, F. E., 1443
Schwartz, M., 759, 973
Schwartzman, J., *10; (correction) 387
Schweinburg, F. B., 1072
Schweitzer, R. J., 1536
Schwimmer, D., *1418
Scott, J. M., 684
Scoville, W. B., 285
Scardigli, G., 1617
Sedallian, P., 1166
See, G., 762
Seelich, F., 1269
Seelye, W. B., 1612
Segal, M. S., 1610
Segaloff, A., 1159
Seiger, H. W., *1232
Seitz, P. F. D., 1441
Selye, H., 290, 970
Senevet, G., 973
Seringe, P., 762
Serwer, M. J., 65
Severinghaus, A. E., *79
Seybolt, J. F., 1158
Shackleton, R. P. W., 1449
Shaffer, B., *1570
Shaffroff, B. G. P., 499
Shales, W. H., 1156
Shambaugh, G. E., Jr., 674
Shane, S. J., 1265
Shapiro, S. K., 679
Shaw, C. R., 65
Shaw, R. R., *525
Shea, P. C., Jr., *1490
Shechter, F. R., *1420
Shedrow, A., 1269
Sheets, R. F., 755
Sheldon, J. M., *648
Shelokov, A., 976
Shen, S. C., 500
Sher, J. J., 66
Sherris, J. C., 603
Sherry, S., 964
Short, D., 970
Shotton, D., 1262
Shumacker, H. B., Jr., 63
Shwachman, H., 406
Sides, L. J., 962
Sidi, E., 1452
Sieracki, L. A., 958
Sifers, E. C., *1321
Sigler, L. H., *998
Slim, J. J. C., 1172
da Silva Lacaz, C., 1359
Silver, A., *1593
Silverman, S. H., 1076
Simkins, S., *794
Simmons, E. E., *645
Simon, A., *1377
Singer, E., 292
Singer, M. J., *546
Sisson, M. A., *454

Sloan, H. E., 405
Slobody, L. B., *1462
Slotnik, I. L., *1126
Smith, A., 602
Smith, A. L., 64
Smith, E. C., 958
Smith, J. H., *1296
Smith, L. A., *1275
Smith, M. H. D., 1262
Smith, R. S., 288
Smithwick, R. H., *1406
Smitt, J. W., 875
Smull, K., *25
Snapper, I., 1157
Snell, E. E., 1347
Snider, E. F., 1157
Sobel, A. E., 1076
Sobel, I. P., 1161
Sobin, J., *1547
Søttrup, T., 1616
Sokol, J. K., *21; (correction) 741
Sokolow, M., *1377
Solinas, P., 1615
Solotorovsky, M., 681
Solow, I. A., 754
Sommers, S. C., 59
Sommerville, J., 683
Soulier, J. P., 1268
Southam, C. M., 870
Spaeth, E. B., 1443
Spain, D. M., *334
Speck, R. S., 674
Speiser, P., 1269
Spencer, J., 756
Spillane, J. D., 1538
Spota, B. B., 1268
Sprague, H. B., 871, *1291
Stachelin, A., 1170
Staffurth, J. S., 1083
Stanischeff, A., 685
Stark, R. B., 680
Starritt, A., 1450
Steen, O. T., 400
Steer, A., 1258
Stein, I. F., Jr., *1017
Steinbach, A. J., 601
Steinberg, A. G., *797
Steinberg, C. L., *1225
Steiner, S. A., 1347
Stevens, G. A., 1345
Stevenson, C. S., 1157, *1190
Stevenson, T. D., Jr., 872
Stewart, A., 1645
Stewart, C. P., 603
Stewart, H. J., *250
Stoerk, H. C., 681
Storch, S., *1011
Stransky, E., 287
Strassburger, P., 1159
Strauss, L., 1070
Streeper, R. B., *1469
Street, E. W., 410
Stroebel, C. F., *1301
Strully, K. J., *10; (correction) 387
Sturgis, G. P., *1469
Suksta, A., 1160
Sullenberger, S. H., 405
Sulzberger, M. B., *788
Sussman, L., 869
Sussman, L. N., 1078
Swaab, L. I., 971
Swan, D. M., *774
Swann, P. G., 1265

T

Taback, M., *897
Taft, R. H., 870
Talbot, J. M., 1535
Talbott, J. H., 1349
Tanturi, C. A., 399
Tardieu, G., 1083
Tassinari, G., 1171
Taubenhaus, M., 960, *1298
Tedeschi, C. G., 872
Teigland, J. D., *1126
Teir, H., 1448
Telford, D., 62
Tempel, C. W., 962
Teng, S. K., 971
Tennent, R. A., 1450
Tepperman, J., *923
Theis, F. V., *992
Thelin, F., 71
Thies, H. A., 1173
Thivolet, J., 1539
Thoburn, T. W., 1445
Thone, H., 1081
Thomas, E. W., 286
Thomas, G. J., 1534
Thomas, J. R., 1447
Thomassen, O. K., 972
Thompson, C. M., 103
Thompson, R. T., 62
Thomson, E. F., 761
Thomson, M. L., 684, 684
Thorburg, J. V., 875
Thorek, M., 62
Tien, S. P., 503
Tillett, W. S., 964
Tisdall, L. H., 672
Tissot, J., 972
Tizard, J. P. M., 1614
Tompsett, R., 752
Tonelli, L., 1268
Tracey, M. L., *1511
Tracy, E. M., Jr., 680
Trounce, J., 1080
Troussel, A., 762
Tucker, M. R., 288
Tuft, L., *1480
Turner, L. B., 674
Tveit, J., 1264
Twiss, E. E., *1019
Twombly, G. H., 1529
Tyler, E. T., *307
Tzanck, A., 1268, 1452

U

Uggla, L. G., 1168
Uhle, C. A. W., *1319
Undurraga, O., 408
Urbach, F., *1410

V

Vahuman, J., 761
Valdes-Dapena, A., *1566
Valdes-Dapena, M., *1566
Webb, J., 1615
Vallecorsi, G., 409
Vammen, A. N., 65
Van Allen, W. W., 1076
van Creveld, S., 971
van der Kuyp, E., 217
van Doornum, H. P. L., 1450
Van Dyke, D. C., 1447
van Embden Andres, E. H., 971
Vangelista, A., 685
Van Wezel, N., *645
Veeneklaas, G. M. H., 1357
Vegas, M., 404
Verhagen, H., 1357
Vernlund, R. J., 1443
Vest, S. A., 1161
Vesterdal, J., 1082
Vetter, H., 1541
Viallier, J., 1167
Villiaumey, J., 217
Villota, J., 1170
Vineberg, A., 968
Vinther-Paulsen, N., 1453
Vivanco, F., 218
Volk, B. W., 752
von Storch, T. J. C., *10; (correction) 387
Voris, H. C., 497
de Vries, S. I., 503
Vural, I. L., 1073, 1073, 1343

W

Wagner, D. J., 756
Wahl, F. J., *992
Wahlgren, F., 1169
Waife, S. O., 403
Wakim, K. G., 677
Waldron, J. M., 1259
Walker, A. E., 1075
Wallace, H. M., *886, *1459, *1462
Wallace, R., 869
Wallace, S. A., 1447
Walsh, W. P., *105
Walters, W., 1077
Walther, T., 1082
Walton, C. H. A., 407, 968
Wannamaker, L. W., 752
Ward, B. C. H., 603
Warkany, J., 600
Warnery, M., 1448
Warren, K. W., 1078
Wartenberg, R., 1152
Wasserman, E., 1162
Wassmann, K., 289
Watson, I. H., 503
Webb, J., 1615
Webb, J. G., 1162
Weber, F. P., 1082
Webster, A., *910
Webster, F. S., *1099
Weeter, J. C., 680
Weil, H., 408
Weinberg, A., *1465
Weinberg, F. S., 498
Weinshel, M., 1442
Weinstein, L., 679
Weinstein, M., 1170
Weinstein, S., 751
Weiss, H. A., *1221
Weisse, K., 69
Werner, A., 1451
Werner, C. A., 681
Werner, S. C., *450
von Werz, R., 407
West, E. J., 1161
Westerberg, H., *633
Westermann, H. H., 1538
Weston, R. E., 1447
Wetterwald, O., 218
Wexberg, L. E., 1347
Whitcomb, B. B., 285
White, P. D., *1291
Wichern, W. A., *1233
Wiener, A. S., 57
Wightman, H. B., 65
Wildschut, A., 1614
Wiley, M., *646
Wilhelm, H. S., 1161
Wilkins, L., 500
Wilkinson, A. W., 603
Wilkinson, C. F., Jr., *1318
Willebrands, A. F., 1075
Willett, F., *1
Williams, G. C. J., 969
Williams, H., 1267
Williams, H. L., 1445
Williams, J. L., 66
Williams, J. W., 1444
Williams, P. C., *910
Williams, P. T., Jr., 1157
Wilson, F. L., 1526
Wilson, J. E., 1163
Wilson, J. L., 1529
Wilson, P. D., 1159
Wilt, J. C., 407
Winkelman, N. W., 1344
Winn, W. A., 960
Wishinsky, H., *105
Witz, A., 762
Wolf, A., 1347
Wolf, B., 1540
Wolferth, C. C., 1262
Wolff, A. H., 282
Wolff, H., 1081
Wolff, H. G., *442, *981
Wolff, L., *616
Wollum, A., 1532
Womack, C. R., 1158
Wood, N. E., 964
Woodfin, H. W., 755
Woodford, R. B., 1611
Woody, E., Jr., 1258
Wright, C. J. E., 1353
Wright, E. A., 1355
Wright, I. S., 283
Wright, L. T., 1163, 1349
Wyatt, O. S., *236
Wyman, S. M., 871

Y

Yahn, O., 1359
Yaskin, J. C., 1443
Young, J. C. G., 1256
Young, V. M., 1156
Young, V. T., 282

Z

Zanartu, J., 1452
Zappala, A. M., 1347
Zara, M., 1452
Zeidberg, L. D., 61
Zeldenrust, J., 1168
Zeligman, I., *816
Zerbini, E. J., 1359
Zieman, S. A., 964
Zilliacus, H., 1082
Zimdhal, W. T., 399
Zimmerman, G., Jr., *1025
Zimmerman, H., 864
Zimmerman, H. J., 601
Zinn, W. J., 1610
Zinnemann, K., 1080
Zinsser, H. H., 961, 1535
Zorn, 685
Zotti, G., 1617
Zummo, B. P., *910

INDEX TO PAGES

OF THE JOURNAL, ACCORDING TO WEEKLY ISSUES—VOLUME 146, MAY-AUGUST, 1951

Pages	No.	Date
1— 78	1	May 5
79— 222	2	May 12
223— 360	3	May 19
361— 418	4	May 26
419— 510	5	June 2
511— 608	6	June 9
609— 692	7	June 16
693— 768	8	June 23
769— 880	9	June 30
881— 980	10	July 7
981—1090	11	July 14
1091—1178	12	July 21
1179—1274	13	July 28
1275—1366	14	August 4
1367—1458	15	August 11
1459—1546	16	August 18
1547—1674	17	August 25